

**THE EFFECT OF BUSINESS UNIT STRATEGY AND DIVERSIFICATION
ON BUDGETARY SLACK;**
*The Moderating Roles of Manager's Value Orientation towards Innovation and
Power Distance*

A thesis submitted in partial fulfillment of the
requirements for the award of the degree:

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from



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by

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*As loneliness savors on my soul
I peer into the mirror to see what it holds
I blink back at myself, questioning who I am
He is unrecognizable, who is it there that stands?*

*His eyes are empty, filled with darkness
They contain no emotion, but long happiness.
His shoulders are exhausted, his neck worn to the core
His arms are depressed, his posture lifeless.*

*My identity has lost its way and cannot find the route back
Leaving my soul, body and mind black,
I am a never ending well; drifting in the unknown
I am as dry as a desert at night, dusty, cold and alone.*

*I thought I was happy all this time
But I was obviously blind.
I am now a lost sheep in the dark
Who is constantly searching for the light.*

*As I passed by the Masjid, something was calling to me,
It was a place of worship, my soul felt at ease.
I watched the believers pray and I knew I belong.
How close my safe haven was; I'd been searching for so long.*

*Life isn't about enjoyment, how foolish that would be,
It is about worshipping Allah, praising Him consistently,
Thanking Him for the life we have, we are truly blessed,
Life without Allah's guidance can leave us in a mess.*

*Woe to those who transgress Allah's limits
They have been set for us to stay within it.
Woe to those who choose to disbelieve,
In this world they think they will always live.*

Allahu Akbar!!!

Dedicated to:

*Mamah: Aisyah and Babah: Achmad
and Brothers and Sister: Zaki, Lubena and Riza*

*There's lots of things
With which I'm blessed,
Tho' my life's been both Sunny and Blue,
But of all my blessings,
This one's the best:
Joining big family of yours*

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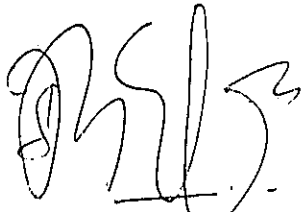
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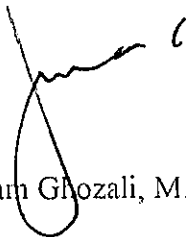


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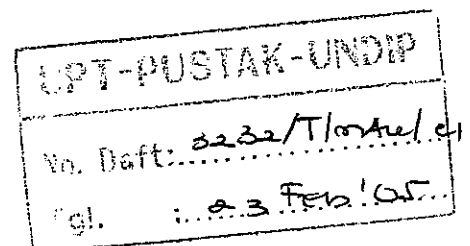


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Finally, I wish to express my special thanks to my family for their support and encouragement for my study.

CERTIFICATE OF ORIGINALITY

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institute of higher learning, except where due acknowledgement is made in the text of the thesis.

Signed:



(Fuad)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

THE EFFECT OF BUSINESS UNIT STRATEGY AND DIVERSIFICATION ON BUDGETARY SLACK:

*The moderating roles of Manager's Value Orientation towards Innovation and
Power Distance*

Abstract

The main purpose of this study is to figure out the best fit model of determinants of budgetary slack. The exogenous variables - business unit strategy and diversification - were plotted in the budgetary slack through the endogenous variables; budget emphasis and incentive system. The moderated roles of power distance and value orientation towards innovation were then tested in the relationship between budget emphasis and budgetary slack and incentive system and budgetary slack, respectively. A hundred and one usable responses from the independent-subsidiaries companies were gathered and analyzed by Structural Equation Modeling and Moderated Regression Analysis. Although the data were un-normal, the bootstrapped method shows the harmless of the bias that might presence. Since the modified observed variables have shown the best fit model in this study, they were employed to examine the relationship of the variables hypothesized. The study mainly reveals that while both diversification and business unit strategy significantly affect budgetary slack and indirectly through budget emphasis, the intervening variable incentive system is insignificantly affect the presence budgetary slack in all the exogenous variables.

Key words: budgetary slack, diversification, business unit strategy, value orientation towards innovation power distance and bootstrapped.

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CHAPTER I

1.1. Background

For nearly five decades, the behavioral effects of budgetary control systems have been examined widely by many researchers, and an important area has been focused on supervisory style as it pertains to the use of budgetary information for performance evaluation. This field began since Hopwood's (1972) seminal paper, where the budgeting literature has shown great interest in understanding possible effects of budgetary control styles.

Most of them generally maintained that the incidence of *dysfunctional behavior* is affected by the rigidity of budgetary controls. A rigid budgetary control style is the condition when employees, mostly at management organization levels, are evaluated primarily on whether or not they achieved their budget. When evaluated in this way, managers are held fully accountable for their performance as measured by the budget. It implies that salary, resources, and career prospects strongly depend on the managers' ability to meet the budget. Managers who miss the targets face the prospect of interventions by upper management, the loss of organizational resources, the loss of annual bonuses/incentives, and worst, the loss of their job (Merchant & Manzoni, 1989). Under these circumstances, managers may look for ways to protect themselves from the downside risk of missing budget targets and the stigma normally (Stede, 2000)

Budgetary slack is an important issue in diversified firms, that is, firms that are simultaneously active in distinct businesses (Pitts and Hopkins, 1982). In

diversified firms, corporate managers are more unlikely to be intimately familiar with the various activities of the business units (Campbell *et al.*, 1995), which put them in a disadvantage to detect slack (Onsi, 1973). Rather than being operationally involved in the business units, corporate managers commonly rely on administrative systems, such as budgetary controls and associated measurements of mostly financial results. Ghoshal and Moran (1996) in Stede (2001) stated that whether slack creation is effectively curtailed by these management control systems is not well understood and in the same argument. The claims by organizational economists and behaviorists are not consistent and empirical evidence is inconclusive.

For example, in contrast to Hopwood (1972), Otley (1978) found that rigid budgetary controls did not lead to increased levels of budget-related tensions and found only mixed support for its associated dysfunctional behaviors (obtaining easy budget targets and having a short-term view of the job). Instead, Otley (1978) found that a high emphasis placed on meeting the budget lead to budgets being more closely met (i.e. higher budget accuracy), this can reduce slack. Otley (1978) also pointed out that the above relationships are dependent on the organizational context in which the budgetary control style is used, such as an organization's operating environment and size.

Equally to their surprise, Dunk (1993) and Merchant (1985b) found that budget slack was low when budget emphasis was high. From their behavioral perspective, they expected budget slack to be high under a rigid budgetary control style. Organization economists, however, would argue that the purpose of rigid

budgetary controls is to increase the likelihood that dysfunctional behaviors get detected, and therefore, reduced (Merchant, 1985b; Williamson, 1964).

But, even if corporate managers were able to detect slack, the information-processing view of the organization (Galbraith, 1973) maintains that they may actually tolerate slack in business unit budgets as a conscious strategy to reduce information overload at the top. A lower level of required performance (i.e. more slack) reduces the chance of a target being missed; and, the fewer the exceptions that need to be investigated, the less the overload on the top.

While research in the management literature is now focusing on the mechanisms and processes that facilitate strategic adaptation to changing environmental conditions, there has been very little research examining the role of management accounting control systems (MACS) in organizations undergoing strategic change (Abernethy and Brownell, 1999). A number of researchers (Hopwood, 1987; Dent, 1990; Argyris, 1990; Hedberg & Jonsson, 1978) have provided strong theoretical support for the idea that MACS can serve an active role in shaping organizational change. There is, however, little broad-based empirical research examining how these systems are used in organizations facing strategic change, and with what consequence (Shields, 1997). Much of the empirical research studying the links between MACS and strategy has been limited to identifying variations in control system design in firms facing different strategic priorities (Simons, 1987; 1988; Govindarajan, 1988; Govindarajan & Gupta, 1985).

Moreover, the results of this research have been inconclusive or in some cases, contradictory. Simons (1987, 1988), for instance, found that prospectors emphasize rigid budgetary controls to a greater extent than defenders. This finding conflict with the widely held view that innovation and differentiation is best achieved in organizations that minimize formal controls. Other studies usually support this view, however, and the balance of evidence for superior performance is generally against the combination of differentiation/prospector strategies with rigid formal (budgetary) controls (Govindarajan, 1988; Govindarajan & Fisher, 1990).

Those kinds of strategies that pursued by the business unit can also influence the extent of slack (Stede, 2001). Different business units within the same diversified firm often pursue different competitive strategies, such as strategies based on either cost leadership or differentiation (Porter, 1980). Organization theory has suggested that slack may be needed to successfully pursue competitive strategies that require a high degree of flexibility to respond effectively to changes in the environment (Bourgeois, 1981). Moreover, the management accounting literature has maintained that the way in which a business unit competes in its market also influences the design of the management control system (Langfield-Smith, 1997). Hence, business unit strategy is expected to be an important factor for explaining both the presence of slack in business unit budgets as well as the type of management control system implemented over business units. Moreover, the results of this research have been inconclusive or in

some cases, contradictory (for example, compare Miller & Friesen, 1982; Simons, 1987; Kaplan, 1990; Govindarajan, 1988).

However, with respect to the existence of culture (power distance) that was developed by Hofstede (1980)¹, and Value Orientation towards Innovation that was developed by Subramaniam and Mia (2001) as moderating variables are likely to exist. Power distance defined as “the difference between the extent to which the superior (in this case corporate company) can determine the behavior of subordinate (business unit)” (Hofstede, 1980, p.98). This moderating effect of culture relates to favorably/unfavorably reaction to a high/low budget emphasis in a high/low power distance index value (Lau *et al.*, 1997)². Those reactions are expected to have the effect on budget slack.

VOI that refers to the degree of importance that managers place on being innovative and creative at work, seems to look for companies that support them to work as their desire. High manager’s VOI prefers to work in the high uncertainty condition because their innovativeness and creativity would face greater uncertainty and risks (Subramaniam and Mia, 2001). On the other hand, differentiator/prospector companies operate in the high uncertainty condition. In this case, manager’s VOI will affect the strategy pursued by the business unit, and vice versa, where in cost-leaders/defenders companies may full with the low manager’s VOI, as the uncertainty in the cost-leadership/defender company is

¹ There are four subdimensions of national culture that was developed by Hofstede (1980): power distance, individualism, uncertainty avoidance, and masculinity)

² Lau *et al.*, (1997) used two subdimensions of culture-power distance and individualism.

quite low. Those high (low) VOI will affect the relationship between business unit strategy and budget slack.

In profit-oriented society such as the business world, discomfort and unpleasantness in a work situation have their compensation in money. An incentive is given to increase manager's willingness to work and increase their performance. However, Pandya and Rao (1998) proposed that organization's performance tends to be higher in a more diversified firms than in a less one. Thus, organization with higher performance tends to give more incentives for its managers. In addition, the management strategy literature maintains that business units within the same firm that pursue different competitive strategies will require different organizational arrangements for strategy implementation to be effective (Stede, 2001). Merchant (1988) stated that budgetary control and incentive systems are part of such organizational arrangements and are viewed as a supportive role within the strategy implementation process.

Because all of the inconsistent and the inconclusive results showed by previous researchers in giving the empirical evidence, it is very interesting to answer why those mixed results are likely to exist. To answer all of those inconclusive and inconsistent results, extension from previous studies (i.e. Stede, 2000; 2001; Subramaniam and Mia, 2001; Chow *et al.*, 1999) are needed. The aims to replicate and/or extent from them are twofold: 1) Indonesia as the third world countries and "western" countries have shown contrasted value

(Noesjirwan, 1977, p. 357)³ and national culture (Hofstede, 1985). This is the main motivational driver in conducting this research by adding new variables- Power Distance and Value Orientation towards Innovation. Especially, no research has been done in Indonesia that use these behavior measures as moderating variables⁴ to examine all the variables hypothesized. 2) Another primary reason to replicate and/or extent from them is, in accordance with the first above, this research expects conflicting, or at least peculiar result, because of the different values and cultures between Indonesia and “western” countries.

In Indonesia, a study to examine some of this paper hypothesized has been done by Rasuli and Yunus (2003), but this research has many differences:

1. Diversification in this research was *unrelated diversification*, which made the data collecting easier.
2. There were no special requirements especially for sample collection method. In this vein, Public Sector Company will not be included in the sample as Rasuli and Yunus (2003) did. This argument is consistent with Rittel and Webber (1973) in Worrall *et al.*, (1998) which stated that local/public sector organization has many problems that the strategy used may not be applied effectively.

³ Noesjirwan (1977) only used Sidney as a benchmark to generalized and compared it with Indoneisa, however, his study consistent with Hofstede (1985) which stated that Indonesia and other western countries (including Australia) have a different indices in national culture.

⁴ Another level of culture that was proposed by Hofstede (1994) is organizational culture. However, this kind of culture has been used by many researchers for example: Bambang Supomo (1997) and Bambang Supomo and Nur Indriantono (1998).

3. Culture and Value Orientation towards Innovation acted as moderating variables in the relationship between business unit strategy and budgetary slack and between budget emphasis and budgetary slack. Rasuli and Yunus (2003) did not use these variables as moderating variables.

1.2. Statement of the Problem

This research to reexamine the relationships between those situational factors (Business Unit Strategy and Diversification) and firm's administrative systems (accounting-based budgetary controls and associated incentives) on budget slack that have been done before by Stede (2000; 2001). Once again, this research has some differences; first, this research was done in Indonesia, which might have the different result because of its difference behavior and culture; and second, this research adds other variables to examined, which are culture (power distance) (Hofstede, 1980) and Value Orientation towards Innovation (Subramaniam and Mia, 2001).

As previously stated, the empirical evidences in budgeting have been mixed. Many conflicting results have been provided by previous researches in those areas⁵. In addition, national culture dimensions and values have never been employed in the budget-related research, even though those variables may have a significant effect as many authors suggested. Hence, the main problem of this thesis are: how situational factors (corporate diversification and business unit strategy) and firm's administrative system (accounting-based budgetary controls and associated incentives) affect the presence of slack in business unit budgets in

⁵ For more detailed review in the conflicting and inconclusive results showed by previous researches in this area, please refer to chapter 2; Literature Review.

diversified firms both direct and indirect and what are the role of manager's Value Orientation towards Innovation and power distance. More specifically, the research is designed to answer the following research questions:

1. Do the exogenous variables – diversification and business unit strategy– directly affect the presence of budgetary slack or indirectly passing through either budget emphasis or incentive?
2. Does power distance affect the relationship between budget emphasis and budgetary slack?
3. Does value orientation towards innovation affect the relationship between business unit strategy and budgetary slack?

1.3. Objectives of Study

The main objective of this study is to analyze the determinants of budgetary slack, consisting of business unit strategy, diversification, budget emphasis, and incentive systems. The secondary purpose is to examine the following items:

1. To analyze the relationship between diversification and budgetary slack; either direct or indirect relationship that passing through both budget emphasis and incentive.
2. To analyze the relationship between business unit strategy and budgetary slack, either direct or indirect relationship by the intervening variables; budget emphasis and incentive

3. To ascertain the moderating effect of power distance on the relationship between budget emphasis and budgetary slack.
4. To ascertain the present of moderated effect of Value Orientation towards Innovation (VOI) that affecting the relationship between business unit strategy and budgetary slack.

1.4. Significance of the Study

This research contributes to the accounting literature in three ways.

1. Although there is evidence that slack exists in many firms, this study attempts to understand and explain how an organization's management control system and situational context affect the presence of slack in business unit budgets (Merchant, 1985a).
2. On top of investigating the impact of business-level strategy, which has been the predominant focus in the management accounting literature, this study also examines the impact of corporate-level diversification.
3. Although there have been done the research about the relationship of supervisory style and culture but few have examined the effect of culture on the relationship of budget emphasis and budget slack. Hence, this research will give another wider scope for this field.

CHAPTER II

LITERATURE REVIEW

Within the management accounting and control literature, considerable attention is paid to the behavioral and organizational effects of using accounting information for the performance evaluation of subordinate managers. This attention is directed largely on the Reliance on Accounting Performance Measures, which is defined, as:

“... the extent to which superiors rely on, and emphasize those performance criteria which are quantified in accounting and financial terms, and which are prespecified as budget targets. (Harrison 1993, p. 319).”

RAPM itself has been received a special position in management accounting research, not only because of its volume and thematic constancy (Kren and Liao, 1988; Lau, et al. 1995), but also its impact on other paths of management accounting research (Chapman, 1997)

The first wave of budget-related performance research was studied by Hopwood (1972) and then followed by Otley (1978) which were focused on the use of budgetary information by superior to evaluate their subordinate's performance. Hopwood (1972) argued that too much budget emphasis would not only cause disagreement and conflict, but also would be ineffective. Later, the disagreement of Hopwood's result found by Otley (1978), he found the positive relationship between budget emphasis and manager's budgetary performance.

Later on, many researchers were motivated to conduct the same study because of the contradictory results shown by Hopwood and Otley (for example, see Onsi, 1973; Brownell, 1982b; Hirst, 1981; 1983b; Govindrajana, 1984, etc.). Onsi (1973) found, in line with Hopwood, that higher emphasis placed on budget was associated with a greater propensity to created budgetary slack. There were numerous researchers found the same findings (Merchant, 1985c; Hughes and Kwon, 1990; Lal, Dunk and Smith; 1996).

2.1. Contingency Theory

“The contingency approach to management accounting is based on the premise that there is no universally appropriate accounting system which applies equally to all organizations in all circumstances” (Otley, 1980, p.84). Rather, it is suggested that particular features of an appropriate accounting system will depend upon the specific circumstances in which an organization finds itself. Thus a contingency approach must identify specific aspects of an accounting system which are associated with certain defined circumstances and demonstrate an appropriate matching.

The contingent variables seems very attractive to involved in the study as many conflicting results exist in the same study, in the same independent/dependent variables used, and in the same place. The history of the conflicting results came from the “father” of the budgeting researchers; Hopwood and Otley. Hopwood (1972) found that a high reliance on budgetary performance led to a high degree of stress, as well as to dysfunctional managerial behavior. Insisting that Hopwood’s results were likely contingent on other organizational

variable, Otley (1978) found the contrary results, he did not find negative relationships between the use of budgetary performance information, and subordinates attitudes and behaviors. Instead, he found either no correlation or positive correlations.

Hence, it would be not surprising any more if many researches adopt contingent variables in their study. For example, Govindrajan and Gupta (1985) used business unit strategy as the moderating variable to examine the relationship between determination of bonus and firm effectiveness. They used the interaction model, plus test for non monotonic effects which is the usual MRA plus partial derivative equals zero within range. Another researcher, Harrison (1993) for instance, he used national culture as the moderating variable to examine the relationship between reliance on accounting performance measures (RAPM), job-related tension and job satisfaction. Just like Govindrajan and Gupta (1985), he used MRA plus test for monotonic effects. Other researchers that used contingent variables in their behavioral research in budgeting has been grown rapidly for example Merchant (1981), Brownell (1985), Brownell and Hirst (1986), Hirst and Lowy (1990), Merchant (1990), Frucot and Shearon (1991) Harrison (1992), Lau et al. (1995), Lau et al. (1997), Subramaniam and Mia (2000), etc.

This research proposes two contingent variables, which are Power distance and Value Orientation towards Innovation. The role of Power Distance as moderating variable is hypothesized to affect the relationship between Budget Emphasis and Budgetary Slack as the favorably/unfavorably reaction of high/low PD's manager in high/low emphasis on meeting the budget. Although many

researchers (please see, Harrison, 1993; O'Connor, 1995; Merchant et al. 1995; Snodgrass and Grant; 1986; Ueno and Wu, 1993; Vance et al. 1992; Chow et al, 1991 and Chow et al. 1994) argued that national culture differs in the particular cultural characteristics, therefore the comparison between countries is much more appropriate to applied in the study (Chenhall, 2003), each individual may have different score based on the Hofstede's questionnaire (aggregated/averaged) in the same country. Hence, this study used one of national culture's dimensions – power distance – to examine the contingent effect of national culture dimensions in Indonesia.

The second criterion that hopefully will have its role as moderating variable is Value Orientation towards Innovation (VOI). VOI is expected to affect the relationship between Business Unit Strategy and Budgetary Slack, because the presence of the contagious effects of organizational culture. A high (low) managerial's VOI will look for companies that will provide him to work creatively ("nice"), and a certain company based on the generic applied may exist with different managerial's VOI because of the uncertainty conditions of job-environment.

Both moderating variables will be included in the analysis by using the interaction form - the simple MRA.

2.2. Budget characteristics

Planning and control are strongly linked. Planning is looking ahead, determining what actions should be taken to realize particular goals. Control is

looking backward, determining what actually happened and comparing it with the previously planned outcomes (Hansen and Mowen; 2000)

A key component of planning, which is known as budget, is financial plans for the future; they identify objectives and the actions needed to achieve them. As a financial plan, budget is used as a basis for performance evaluation. Beside that, budget is not only as a financial plans to determine cost and profit center in an organization, but also as a tool for high-level managers to control, coordinate, communicate, evaluate and motivate their subordinate (Kennis, 1979). In addition, a budgetary system gives an organization several advantages, which are (Hansen and Mowen; 2000):

1. It forces managers to plan,
2. It provides information that can be used to improve decision making
3. It provides a standard for performance evaluation
4. It improves communication and coordination

Budgets are major feature of most MACS and are used by management as a means of coordinating and communicating strategic priorities and, in conjunction with reward systems, are often used to facilitate lower-level managers commitment to these priorities. With a few exceptions, the vast majority of prior research in management accounting has implicitly or explicitly assumed that budgets serve what Simons (1990) refers to as a diagnostic role, and what Burchell et al. (1980) earlier described as an “answer machine” role. In this role, budgets serve the traditional purpose of evaluating performance and attributing

responsibility for outcomes to particular organizational functions or members. However, budgets can also be used as a dialogue, learning and idea creation machine (Burchell et al., 1980).

A defining feature of interactive use of budgets is the continual exchange between top management and lower levels of management, as well as interactions within various levels of management but across functions. This interaction involves not only participation between subordinates and superiors in the budget setting process, but also an ongoing dialogue between organizational members as to why budget variances occur, how the system or behaviors can be adapted and even whether any action should be taken in response to these variances. In this setting, the budgeting system becomes a “database”, which facilitates organizational learning.

Interactive use occurs when top management “uses the planning and control procedures to actively monitor and intervene in ongoing decision activities of subordinates. Since this intervention provides an opportunity for top management to debate and challenge underlying data, assumptions and action plans, interactive management controls demand regular attention from operating subordinates at all levels of the company. (Simons, 1990, p. 136)

2.3. Budgetary Slack

In an attempt to define budgetary slack, Merchant (1985a) proposed that it is the difference between the amount budgeted for an area and that which is necessary. Moene (1986) defined slack as the difference between the appropriated

budget and true minimum costs. In a slack budget, Lukka (1988, pp. 282-83) argued that the budget figure is intentionally made easier to achieve in comparison to the forecast, the latter being the budgeting actor's "honest budget estimate". Young (1985) proposed that slack is the amount by which subordinates understate their productive capability when selecting work standards against which their performance will be evaluated. Waller (1988), on the other hand, regarded slack as the excess of resources over and above those required to complete a task. These perspectives suggest first, that slack is the intentional underestimation of revenues and productive capabilities and/or overestimation of costs and resources in the budget and second, that slack is dysfunctional (Collins, 1978; Merchant, 1985a, 1985b; Schiff and Lewin, 1968; Williamson, 1964). One such dysfunctional organizational consequence arises from a lack of control or distortion in information used in decision-making (Govindarajan, 1986; Nouri, 1994). Onsi (1973) concluded, however, that the extent to which slack is necessarily dysfunctional is dependent on the manner in which it is used. In this vein, it has been proposed that slack may provide departmental managers with the capacity to respond effectively to changing operating conditions (Cyert and March, 1963; Gabriel, 1978; Merchant and Manzoni, 1989). Recently, Dunk (1995) found that the availability of slack diminished the detrimental effect of high task difficulty on performance.

As stated before, slack, however, may provide some benefits and some costs. In brief, slack can be categorized as "good" because (Bourgeois, 1981; Cyert and March, 1963).

1. It fosters innovation and experimentation,
2. It Absorbs performance shocks, resolves goal conflict,
3. And it induces employees to stay with the firm

But, slack can also be viewed as “bad” because it represents inefficiency and managerial self-interest that detracts from the value of the firm (Leibenstein, 1966; Williamson, 1964).

Theorists in accounting have used agency theory to generate insights regarding the problem of budgetary slack (e.g., Magee 1980; Christensen 1982; Baiman and Evans 1983; Penno 1984). In its most common form, agency theory addresses the relationship between a risk-neutral principal and a risk-averse agent, where the principal delegates work to the agent who has disutility for effort (Baiman 1990). From this theoretical framework, budgetary slack can be attributed to four conditions: 1) information asymmetry between the superior (the principal) and the subordinate (the agent) regarding the subordinate’s effort or output potential, 2) uncertainty in the relation between effort and output, 3) conflicting goals between the superior and the subordinate, and 4) opportunism or self-interest on the part of the subordinate. Absent information asymmetry, the superior and subordinate could simply bargain on the appropriate level of effort in exchange for a given payment. Absent uncertainty between effort and output, the superior could simply infer the level of effort by observing the output of the subordinate. Finally, absent conflicting goals or self-interest, the subordinate would simply act in the best interest of the superior (Eisenhardt 1989).

Agency-based models suggest that the honest revelation of the subordinate's private information in the budget benefits the organization through improved efficiency and risk sharing (Magee 1980; Christensen 1982; Baiman and Evans 1983; Penno 1984). Traditional agency models, however, assume that individuals are economically rational and motivated solely by self-interest (Baiman 1990). That is, individuals can compute expected utilities properly and will make choices that maximize their consumption, independent of the utility of others or abstract values such as honesty or fairness (Baiman 1990, Koford and Penno 1992). Given these assumptions, agency models predict that subordinates will build slack into their budget. Suggested means for reducing slack from this theoretical framework include "truth-inducing" pay schemes and monitoring.

Accounting researchers also have generated empirical evidence regarding the creation of slack in experiments where subjects, acting as subordinates, perform simple production tasks and participate in the setting of budgets. Young (1985) tested the effects of risk aversion and information asymmetry on budgetary slack under condition of production uncertainty. Young found that risk-averse subordinates created more slack than non-risk-averse subordinates, where risk aversion was measured by a standard two-outcome lottery. However, Young's information asymmetry manipulation, which involved withholding or disclosing the subordinate's production capability to the superior, did not significantly affect slack.

Waller (1988) compared the level of slack built under two pay schemes in the presence of information asymmetry: a slack-inducing pay scheme and a

truth-inducing pay scheme. Using a two-period within-subjects design, Waller found that introducing the truth-inducing pay scheme significantly reduced slack only for risk-neutral subordinates, where risk preferences were manipulated by the Berg et al. (1986) technique.

2.4. Business Unit Strategy

Business unit strategy (or, competitive strategy) refers to how a business unit competes in its market to achieve a competitive advantage relative to its competitors (Porter, 1980). At least, there are two basic strategies that have been used widely in management practice. They are cost-leadership and differentiation (Porter, 1980) or defenders and prospectors (Miles and Snow, 1978). This study assumes that these kinds of strategies have the same “sense of market oriented”

Those strategies have been used widely in management accounting research. Cost leadership and defenders have a narrow product range and undertake little product market development (Stede, 2001). They focus primarily on achieving a low cost position relative to competitors and therefore pursue cost reduction, exploit economies of scale, standardize the task environment, and produce standard, undifferentiated product. Differentiators/prospectors, in contrast, actively engage in market and product development. They strive to create something that is perceived by the customer as unique by pursuing superior product features, product innovation, customer service, brand image, etc (Miles and Snow, 1978; Porter, 1980).

A company's goal in pursuing a cost-leadership or low-cost strategy is to outperform competitors by doing everything it can to produce goods or services at a cost lower than theirs. Two advantages accrue from this strategy: 1) because of its lower costs, the cost leader/defender is able to charge a lower price than its competitors yet make the same level of profit as they do. 2) If industry rivalry increases and companies start to compete on price, the cost leader will be able to withstand competition better than the other companies because of its lower cost.

The objective of differentiators/prospectors is to achieve a competitive advantage by creating a product – good or service that is perceived by customers to be unique in some important way. The differentiated company's ability to satisfy a customer need in away that its competitors can not means that it can charge a premium price – a price considerably above the industry average. The ability to increase revenues by charging premium prices allows the differentiator/prospectors to outperform its competitors and gain above-average profits. The premium price is usually substantially above the price charged by the cost leader/defender, and customers pay it because they believe the product's differentiated qualities to be worth the difference.

The advantages of the differentiation strategy can be discussed in the context of the five forces model. Differentiators/prospectors are unlikely to experience problems with powerful buyers because the differentiators/prospectors offer the buyer a unique product. This unique product, thus create a deep brand loyalty to its customers. Differentiation and brand loyalty also create an entry barrier for other companies seeking to enter the industry.

The main problem with differentiation/pro prospector strategy center on the company's long-term ability to maintain its perceived uniqueness in customers' eyes. This would be the hardest threat this kind of strategy may beard.

2.5. Diversification

Diversification is a means by which a firm expands from its core business into other product markets (Aaker, 1980; Andrews, 1980; Berry, 1975; Chandler, 1962; Gluck, 1985). Another definition is from Pitts and Hopkins (1982) that defines corporate diversification is the extent to which a firm is simultaneously active in distinct businesses.

There are many advantages that a firm can get by doing diversification. Diversification can improve debt capacity, reduce the chances of bankruptcy by going into new product/ markets (Higgins and Schall 1975, Lewellen 1971), and improve asset deployment and profitability (Teece 1982, Williamson 1975). Skills developed in one business transferred to other businesses, can increase labor and capital productivity. A diversified firm can transfer funds from a cash surplus unit to a cash deficit unit without taxes or transaction costs (Bhide 1993). Diversified firms pool unsystematic risk and reduce the variability of operating cash flow and enjoy comparative advantage in hiring because key employees may have a greater sense of job security (Bhide 1993).

There is a large literature on how to measure "distinct" business in strategic management (Stede, 2000). The literature generally distinguishes related and unrelated diversification. Related diversification is diversification into a new

business activity that is linked to a company's existing business activity, by commonality between one or more components of each activity's value chain. Normally, these linkages are based on manufacturing, marketing, or technological communalities. In the other hand, unrelated diversification is diversification into a new business area that has no obvious connection with any of the company's existing areas. The relation usually only based on their financial consolidated.

Recent researches in organizational behavior have showed that diversification might have either positive or negative effect on individual behavior. Sometimes the more diversified companies might have the positive effect on individual behavior (Ancona and Coldweel, 1992; Hambrick et al. 1996), and vice versa, person might show the negative attitude in the more diversified ones (Kirchmeyer, 1996; Pelled, 1996).

Bushman et al. (1995) studied business unit managers in the 246 firms to indicate percentage of division CEO annual bonus based on performance above divisional level. He found that more diversified firms tend to received more incentive. Stede (2000) identified 153 business unit managers and found the significant effect in his hypothesis stated that managers in more diversified firms received more incentives percentage in their incentive systems. Although, almost all of them are in the same argument, however neither the number of incentives that should be given nor the method of incentive systems is studied widely.

More diverse firms also may influence the tightness of budgetary reliance on accounting performance. Merchant (1981) who sent the questionnaires to 170

manufacturing managers concluded that more diverse departments are likely to induce the higher reliance on accounting performance measures

2.6. Budget emphasis

Budget emphasis is a control and planning tool whether performance, incentives or bonuses are based only the achievement of meeting the budget objectives. This condition can enhance manager's performance by: first, increase his/her performance in order to achieve the budget objectives, and second, to less rigidly the budget, so the budget will easily attainable. When evaluated in this way, managers are held fully accountable for their performance as measured by the budget. This implies that salary, resources, and career prospects strongly depend on the managers' ability to meet the budget. Managers who miss the targets face the prospect of interventions by upper management, the loss of organizational resources, the loss of annual bonuses, and worst, the loss of their job (Merchant & Manzoni, 1989). Under these circumstances, managers may look for ways to protect themselves from the downside risk of missing budget targets and the stigma normally (Stede, 2000).

Research in the tightness of RAPM have been studied widely, pioneered by Hopwood (1972) and then followed by Otley (1978). As these two showed the contradictory results, many researchers re-examined their hypotheses (commonly by adding contingent variables). Brownell (1982; 1987), Hirst, (1981), merchant (1985a), and Dunk (1993), Dunk and Perera (1997), Lau et al. (1997), Stede (2000;2001) are ones of them.

2.7. Incentives

Incentives or reward has become the most appropriate accounting control to motivate managers from reducing the dysfunctional behaviors such as budget slack etc. However, for an accounting measure to have motivational properties it must be accepted as a relevant target, this statement conforms to expectancy theory proposed by Vroom (1964). In practice, this theory is usually operationalized by setting a target level for the accounting measure, where individuals are assumed to be rational decision-makers who evaluate alternative courses of action in terms of the probability that each alternative will lead to valued rewards. In a profit-oriented society such as the business world, discomfort and unpleasantness in a work situation have their compensation in money, which is known as incentive. Once again, the old saying that “you can get anything if you are willing to pay for it” is definitely correct.

However, although it has been commonly accepted that incentive can enhance the motivation of the subordinates to conduct the job as the superior wish, “prior research has not addressed how much incentives that possibly needed to encourage the appropriate level of risk taking (i.e., encourage employees to maximize expected performance). Specifically, prior research has not examined which incentive schemes, or combinations and dimensions that induce managers to take appropriate levels of risk” (Sprinkle, 2003, p. 2003)

There are many types of incentives schemes that can be used in the research. For instance, Drake et al. (1999) used group based incentive versus tournament-based incentive, while Merchant et al. (1995) used individual

performance dependent rewards consist of group rewards, long-term incentive and subjective performance evaluation. For the summary of organizational incentives systems that have been used widely in the accounting research in the past two decades, please refer to Merchant et al. (2003).

In this research, reward here means extrinsic reward, incentives. This is done because, in accordance with Need-Satisfying theories, where in Indonesia, which has the low income for its citizens, money or other “material” factors may be the most useful motivational driver.

2.8. Culture

Hofstede (1980, p.25) defines “culture as the collective programming of the mind which distinguishes the members of one human group from another”. Hofstede divides culture into four sub dimensions, which are power distance, individualism, uncertainty avoidance, and masculinity. This study only consider power distance that will become a proxy of culture as this dimension is hypothesized to interact with budget emphasis that was suggested by Lau *et al.*, (1995) and Harrison (1992)⁵. Hofstede and Bond (1984, p. 419) defined power distance as “the extent to which the less powerful members of institutions and organizations accept that power is distributed unequally and the basic anthropological/societal issue to which it relates is social inequality and the amount of authority of one person over others.

⁵ Lau *et al.*, (1997) and Harrison (1992) used two dimensions of culture: power distance and individualism to hypothesized those interactions with budget emphasis.

Recent accounting studies incorporated some or all Hofstede's dimensions are mostly applied in areas of behavioral research. It was started from Chow et al. (1991) who found the insignificant relation between individualism and performance by controlling team pay, and then followed by many numerous researchers such as Harrison (1992; 1993), O'Connor (1995), Lal et al. (1996), Nicholson et al. (1997), etc.

Although this is a sign of widening the area of research in behavioral research of accounting, but many of them revealed the contradictory results. For example, while Chow et al. (1996) examined the effect of three Hofstede's national culture dimensions (Individualism, Power distance and uncertainty avoidance) on the relationship between control system tightness, procedural controls, and centralized directives and found the significant ones, Harrison (1992) showed the contradictory results.

2.9. Value Orientation towards Innovation (VOI)

Managers' VOI reflect their beliefs in undertaking an innovative and creative approach to work (O'Reilly *et al.*, 1991). Given that managers' VOI affect their work attitudes and choices in terms of the degree of novelty or innovativeness in ideas, products or projects (Russell and Russell, 1992), it is argued that their VOI will affect their preferences for management control systems. For example, in comparison to managers with low VOI, managers with high VOI are likely to be more motivated to pursue creative and innovative ideas and projects. Such ideas and projects, however, will also involve higher uncertainty and greater risks. Smith (1998) and Russell and Russell (1992) argue

that because managers who are innovative and creative face greater uncertainty and risks, they will need to have more decision-making autonomy. It is argued that high decision-making autonomy will aid managers in managing a less predictable and a more dynamic environment effectively. In this vein, greater autonomy can be viewed as diversified, because in a more diversified firms, the greater the autonomy will be.

2.10. Summary

This chapter is divided into eight parts; the first part provides the previous related researches which used the contingent variables. Otley (1980) suggested that particular features of an appropriate accounting system will depend upon the specific circumstances in which an organization find itself. Govindrajan and Gupta (1985) used business unit strategy to moderate the relationship between determination of bonus and firm effectiveness. In the culture area, Harrison (1993) used national culture as the moderating variable to examine the relationship between reliance on accounting performance measures (RAPM), job-related tension and job satisfaction. This was then followed by many researchers in their behavioral research in budgeting, for example Merchant (1981), Brownell (1985), Brownell and Hirst (1986), Hirst and Lowy (1990), Merchant (1990), Frucot and Shearon (1991), Lau et al (1997), Subramaniam and Mia (2000), etc. this research proposed two contingent variables. Power distance is hypothesized to moderate the relationship between budget emphasis and budgetary slack, while Value Orientation towards Innovation acts as a moderator variable to examine the relationship between business unit strategy and budgetary slack.

The second part of this chapter presents the budget characteristics and the key roles of budget. Simons (1990) refers budget as an “answer machine” role, in which budget serve the traditional purpose of evaluating performance and attributing responsibility for outcomes to particular organizational functions or members. Burchell et al. (1980) defines budget as a dialogue, learning and idea creation machine.

Budgetary slack and the previous-related researches are provided in the third part of this chapter. The definition of budgetary slack has been provided by many authors (e.g., Merchant (1985a), Moene (1986), Lukka (1988), Young (1985), Waller (1988), etc). Budgetary slack may provide some benefits and costs, in which slack can be categorized as “good” because it fosters innovation and experimentation, it absorbs performance shocks, and induces employees to stay with the firm (Bourgeois, 1981; Cyert and March, 1963). However, slack can be categorized as bad as it represents inefficiency and managerial self-interest that detracts from the value of the firm (Leibenstein, 1966; Williamson, 1964).

The third section provides the construct of business unit strategy that was used in this study. Miles and Snow (1978) typology of defender or prospector and Porter (1980) generic strategy; cost leadership and differentiation. Cost-leadership and defenders have a narrow product range and undertake little product market development (Stede, 2001). Cost-low position relative to their competitors is their main objectives to exploit economies of scale, standardize the task environment, and produce standard, undifferentiated product. Differentiators/prospectors actively engage in market and product development. They strive to create

something that is perceived by the customer as unique by pursuing superior product features, product innovation, customer service, brand image, etc.

Diversification is presented in the section four. Diversification is a means by which a firm expands from its core business into other product markets (Aaker, 1980; Andrews, 1980; Berry, 1975; Chandler, 1962; and Gluck, 1985). Diversification has been argued to be having many advantages. Diversification can improve debt capacity; reduce the chances of bankruptcy by going into new product/markets (Higgins and Schall, 1975, Lewellen, 1971), and improve asset deployment and profitability (Teece, 1982; Williamson, 1975), etc. The literature on strategic management generally distinguishes related and unrelated diversification to measure distinct business. Recent researches in organizational behavior have showed that diversification might either positive or negative effect on individual behavior. The more diversified companies might have the positive effect on individual behavior (Ancona and Coldweel, 1992; Hambrick et al. 1996) and vice versa, person might show the negative attitude in the more diversified ones (Kirchmeyer, 1996; Pelled, 1996).

Budget emphasis is presented in the fifth part. Research in the tightness of RAPM have been studied widely, pioneered by Hopwood (1972) and then followed by Otley (1978). As these two showed the contradictory results, many researchers re-examined their hypotheses (commonly by adding contingent variables). Brownell (1982; 1987), Hirst, (1981), merchant (1985a), and Dunk (1993), Dunk and Perera (1997), Lau et al. (1997), Stede (2000;2001) are ones of them.

The sixth part of this chapter provides the incentive and its previous-related researches. Incentive can enhance the motivation of the subordinates to conduct the job as the superior's wish. Nevertheless, "prior research has not addressed how much incentives that possibly needed to encourage the appropriate level of risk taking (i.e., encourage employees to maximize expected performance). Specifically, prior research has not examined which incentive schemes, or combinations and dimensions that induce managers to take appropriate levels of risk" (Sprinkle, 2003, p. 2003). There are many types of incentives schemes that can be used in the research. For instance, Drake et al. (1999) used group based incentive versus tournament-based incentive, while Merchant et al. (1995) used individual performance dependent rewards consist of group rewards, long-term incentive and subjective performance evaluation. For the summary of organizational incentives systems that have been used widely in the accounting research in the past two decades, please refer to Merchant et al. (2003).

The sixth part of this chapter displays the culture and the researches on this area. It was started with Hofstede (1980) who divides the national culture into four dimensions – power distance, masculinity, individualism, and uncertainty avoidance. Recent accounting studies incorporated some or all those Hofstede's dimensions are mostly applied in areas of behavioral research. It was started from Chow et al. (1991) who found the insignificant relation between individualism and performance by controlling team pay, and then followed by many numerous

researchers such as Harrison (1992; 1993), O'Connor (1995), Lal et al. (1996), Nicholson et al. (1997), etc.

The last part of this chapter presents value orientation towards innovation. Since, only few researches have been done on this related area. This part only contains of definition and its possibilities to be studied.

TABLE 1: PREVIOUS-RELATED STUDIES

No	Authors (year)	Sample	Contingent/ Antecedent/ Moderating variables	Variables
1	Hopwood (1972)	167 supervisors	-	Job-related tensions Relation with superiors Relation with peers Data manipulation Dysfunctional behavior
2	Onsi (1973)	132 functional managers	-	Budgetary slack Data manipulation
3	Otley (1978)	39 profit center managers		Job-related tensions Trust in supervisors Evaluation clarity Job clarity Evaluation fairness Budgetary performance
4	Kennis (1979)	169 managers in head departments		Job involvement Job satisfaction Job tension Budget attitudes Budget motivation Budgetary performance

			Cost efficiency Job performance
5	Merchant (1985)	170 manufacturing managers	Budgetary slack
6.	Merchant (1990)	54 profit center managers	Discouragement new ideas Short term thinking
7.	Lal et al. (1996)	83 production managers	Budgetary slack
Incentives			
1.	Chow et al. (1991)	55 business students	Pay scheme Budget slack Performance
2.	Ittner et al. (1997)	CEO of 317 firms	Weight on non-financial performance measures Competitive strategy
			Regulatory environment Financial performance Noise in financial performance measures CEO influence
3	Lanen and Larcker (1992)	CEO of 114 utility firms	Performance-based compensation contract Diversification Technical production

				efficiency Environmental change
4.	Chow et al. (1999)	159 managers in Japan, Taiwan and U.S.	Performance contingent financial rewards	National culture
5.	Perera et al. (1997)	105 managers from manufacturing firms	Non-financial performance measures	Self-rated performance
6.	Collins et al.	28 latin American accountants and managers	Budgetary usage for performance evaluation	Miles and Snow's typology of strategy
7	Merchant et al. (1995)	Profit center managers in 2 US + 2 Taiwan firms	Use of group rewards	National culture
			Use of long-term incentives	
			Use of subjective performance evaluation	
8.	William et al. (1990)	201 department managers of public sector organizations in Canada	Budget-based performance evaluation	Self-rated performance
Strategy				
1.	Govindrajan and	58 BU managers	Build strategies rather	Performance

	Gupta (1984)				
2.	Simons (1987)	76 managers	Defender/prospectors	Use of tight budget goals Use of cost control	
3.	Govindrajan (1988)	121 general BU managers	Low cost/differentiation	Effectiveness	
4.	Merchant (1990)	54 profit center managers	Growth vs harvest	Long-range orientation Discouragement new ideas	
National culture					
1.	Frucot and Shearon (1991)	83 Mexican managers	Power distance Uncertainty avoidance	Budgetary participation Performance Job satisfaction Locus of control	
2.	Chow et al. (1991)	Managers in Singapore and USA	Individualism	Performance=f(I x team pay x task interdependence)	

3.	Harrison (1993)	Australian and Singaporean managers	Individualism	Job tension, satisfaction= $f(RAPM \times I)$
4.	Merchant et al. (1995)	Taiwanese and American managers	Individualism Power distance Uncertainty avoidance Masculinity	Team rewards = $f(I, UA)$ Long term incentives = $f(I)$ Subjective performance evaluation = $f(PD, UA)$
5.	Ueno and Wu (1993)	Managers in Japan and U.S.	Uncertainty avoidance Individualisms	Budgetary slack = $f(I)$ Performance evaluation = $f(I)$ Structure of budget process = $f(UA)$ Long range budget = $f(UA)$

CHAPTER III

METHODOLOGY

The main aim of this chapter is to present the research methodology used to achieve the objectives of the study. The first section provides a description of the study, and then followed by operational measures of the variables and population, sampling frame and data collection method, respectively. The second section formulates the hypotheses for the study and statistical tests employed in this study.

3.1. Description of the study

This study was designed to find the best model in plotting the situational factors (business unit strategy and diversification) and firm's administrative systems (budget emphasis and incentives systems) to the budgetary slack. From treating the variables into the unobserved variables until observed variables are examined carefully to find the best fit model. The hypotheses (exclude the moderating variables) are tested by using Structural Equation Model (SEM) in AMOS 4.01 with the best fit obtained from the acceptance cut-off of the model.

Moreover, the moderated hypotheses are examined with the critical assumptions that these two statistical method although interrelated but separated. SEM was done to examine the "fit model" and the hypotheses from H1 to H3, while MRA was employed to test H4 and H5.

3.2. Variables and Measurement

This research employed seven variables: budget emphasis, incentive, budget slack, business unit strategy, corporate diversification (unrelated diversification), plus value orientation towards innovation and power distance as moderating variables that are measured by using measurement instruments adopted from previous relevant research (see also Stede, 2000; Subramaniam and Mia; 2000; Lau *et al.*, 1997; Hofstede, 1980) and published in various research journal and literature.

Corporate Diversification

To measure the corporate diversification, this study used the number of separate entities in each company (entity) as a proxy for the degree of diversification at the highest organizational level (Stede, 2000). Each company must have at least two business unit. This is different with Stede's (2001) measurement in order to get more samples.

Budget emphasis

Budget emphasis reflects the amount of emphasis placed on meeting the budget in budgetary control process. A budgetary process high in emphasis on meeting the budget is one in which subordinate managers are evaluated primarily on whether or not they achieve their budget, which is referred to as a tight or rigid budgetary control process (Anthony and Govindrajana, 1998, pp. 436). In this research, the variable consist of 7 items that scores from 1 (definitely false) to 5 (definitely true) adopted from Stede's (2000) published

research. The higher score, the more achieving the budget is emphasized, and hence the tighter the budgetary control process is perceived to be.

Budgetary slack

Budget slack has been discussed in the literature under a variety of labels (Merchant, 1985a). A budget contains slack if the business unit manager has intentionally set his/her budget target lower than his/her honest forecast about the future so that the budget becomes easier to achieve (Lukka, 1988). A budget target is difficult to achieve if the probability that it will be met is low (Merchant and Manzoni, 1989) or if it requires serious effort and a high degree of efficiency in accomplishment (Simons, 1988). The measurement used Stede's (2000) slack measurement which consists of 5 items (items 1-4, using 5 items Likert's scale, and item 5 is fully anchored question (asking whether the budget is very easy to attain until impossible to attain).

Incentives

This variable is measured using two aspects of monetary incentives. First, asking respondents to indicate the percentage of their compensation that is performance-dependent. Second, asking respondents to indicate the percentage of their bonus that depends on total corporate performance v. their own business unit performance (Gupta and Govindarajan, 1986).

Business Unit Strategy

Business strategy as Govindarajan and Fisher (1990), using porter's (1980) low cost – differentiation typology is used in this research. A cost leader

aims to achieve low cost relative to competitors and vigorously pursues cost reduction, exploits economies of scale, standardizes the task environment, and produces standard undifferentiated products. A differentiator, on the other hand, creates something that is perceived by costumers as unique and pays more attention to superior product features, customer service, brand image, etc. (Porter, 1980). Respondents were asked to indicate the percentage of their business unit's current sales accounted for by either of these strategies. In addition, the business unit managers were asked to position their business unit relative to competitors (on a seven-point scale from significantly lower to higher) in terms of:

- 1) Product selling price;
- 2) R&D expenditures
- 3) Product quality
- 4) Brand image; and
- 5) Product features

Managerial value Orientation towards Innovation

The construct was measured using a six-item instrument, which was adapted from the O'Really *et al.*, (1991), Windsor and Ashkanasy (1996) and Subramaniam and Mia (2001). The items (as shown in the questionnaire) include innovation, opportunities, experimenting, risk-taking, being careful and rules-orientation. Participants were asked to respond indicating the extend to which they as a member of their organization value the concept of innovation

under each item in the instrument on a five-point scale ranging from 1 (not at all) to 5 (to a very great extent).

Power Distance

Power distance was measured with a nine-item instrument developed by Hofstede (1980). At present, it is the only available instrument for measuring power distance (Lau *et al.*, 1997). "This instrument was based on subordinates' perceptions of whether their peers are afraid to disagree with their superiors, as well as their peers' perceptions of and preferences for their superiors' decision making styles". (Lau *et al.*, 1997, p. 183). Power distance is measured by using nine-items developed by Hofstede (1980), which is the only instrument available to measure power distance (Lau *et al.*, 1997). Power Distance Index (PDI) was not considered to be adopted as almost all the prior research did, since the nine-items of PD's construct used in this study would be more precisely explain the extent of power distance (Hofstede, 1980, p. 109)

3.3. Population, Sampling Frame and Data Collection Method

The "expected" population in this research was the business units (subsidiaries) of manufacturing public listed firms in Indonesia. The parents must have held two subsidiaries minimum, regardless whether they are related or unrelated diversified firms (however, indirect and/or foreign ownership were not considered to be included as the sample). The parents also must have been acquired its subsidiaries since two years ago, in order to get a better familiar managers in understanding his/her diversified firms, therefore can reduce the bias

of this research. The companies' list is taken from Indonesian annual report of the public listed companies 2002 CD-ROM. The subsidiaries list and their address identified in Standard Trade and Industry Directory 2000. Below are the specific requirements to be included in the sample.

1. The parents must have hold their subsidiaries minimum 51% of common stock during the past two years
2. No indirect ownership allowed to be included in the sample
3. The parents must be national firms

This study identified 246 firms from 36 parents of manufacturing public listed firms. 500 self-addressed questionnaires (paid by the author, of course) randomly spread to those companies (excluded the subsidiaries that were not listed in the STID 2000). Each sampled companies received 5 questionnaires to the managers that were responsible in attaining the budget. Considering the company size that may be quite lower than the same setting of study in foreign, thus 5 questionnaires in each company is considered appropriate.

The unit analyses of this research were the managers that responsible, which their performance were valued by whether or not they achieve their target. The manager's characteristics expected were managers from various functions or division and until five levels below the top management (Chief Executive Officer). The managers must at least have held their position for two years or more. This criterion was made to reduce the "*phatamorgana*" effect of budget emphasis. Sometimes, the new managers that their performance (also the reward)

is valued by whether or not they achieve the budget, do not feel surely the rigidity or the flexibility of the budget.

In this first method, “the red mark” of Indonesian’s research responses was proven. Out of 505 questionnaires allocate to the 100 companies only 43 were usable (10.89 percent). Beside that, 100 e-mail questionnaires also spread to the respondents; however, this method was quite worse, leaving only 2 were usable. Coincidentally, both are the author’s friend.

Perhaps, this e-mail questionnaires method was not appropriate enough as the respondents were asked to print the attached questionnaires, fill them and send them directly to the author. Another “dull-witted” approach was asked respondents to scan the questionnaires, and send them back by e-mail. Perhaps, this was why the response rate did not even reach two percent.

After got depressed for some time, as the pretty low response rate (totally 7.43 percent), this study was loosening the study’s specific requirements. Managers from subsidiaries of non-go public firms were allowed to be included in the sample. A “blind-door knocked” approach was used. The author came to the companies (commonly located in Semarang) and ask whether their companies had the parent, and if they did, how many. The minimum “peer” acquired firms must be at least two firms, as this study would be useless if ignoring this critical situational factor.

Two hundred questionnaires were allocated randomly in those firms and obtained 56 usable questionnaires. It means that the total response rate increase from 7.43 percent to 12.54 percent.

3.4. Hypotheses Development

As indicated earlier the primary study objective was to determine the interrelationship between diversification, business unit strategy, incentive, budget emphasis, and budgetary slack, plus the moderating variables, power distance and value orientation towards innovation. Thus, the hypotheses must be clearly stated before doing the analyses. However, the logical thinking is also provided in order to give a better understanding about this study.

3.5. The effect of diversification on budgetary control, incentives, and budgetary slack

Corporate diversification is defined as the extent to which a firm is simultaneously active in "distinct" businesses (Pitts and Hopkins, 1982). At least, there are two kinds of diversifications that were used by many literatures in strategic management: related diversification and unrelated diversification. In general, firms pursue related diversification to exploit operational interrelationships between business units (operational synergies). Unrelated diversification, on the other hand, is based on financial connections between businesses and the benefits derived from internalizing capital market transactions (Hill and Hoskisson, 1987). Due to data limitations, diversification is defined and operationalized by the simple count of separate entities controlled by the firm

(publicly reported), which repeatedly has been shown to be a valid approach to measuring diversification (e.g. Lubatkin *et al.*, 1993).

Those various definition about diversification should provide us a clear paradigm that corporate diversification has received some important attention by behavioral researchers in accounting. For example, Bushman *et al.* (1995), Burrows and Black (1998) and Stede (2001) examined the effect of diversification on incentives of business unit managers.

Bushman *et al.* (1995) studied business unit managers in the 246 firms to indicate percentage of division CEO annual bonus based on performance above divisional level. He found that more diversified firms tend to received more incentive. Stede (2000) identified 153 business unit managers and found the significant effect in his hypothesis stated that managers in more diversified firms received more incentives percentage in their incentive systems. Although, almost all of them are in the same argument, however neither the number of incentives that should be given nor the method of incentive systems is studied widely.

More diverse firms also may influence the tightness of budgetary reliance on accounting performance. Merchant (1981) who sent the questionnaires to 170 manufacturing managers concluded that more diverse departments are likely to induce the higher reliance on accounting performance measures. Hence these trends also possibly affect the extent of budgetary slack.

The possible explanation in plotting the endogenous variable diversification may be explained from Galbraith model. Galbraith (1973)

maintains that diversification, that is, an increased number of business units to be controlled, puts pressure on the information processing capacity at the top. To deal with information overload, corporate management can either increase the capacity to handle more information, or reduce the amount of information that is processed. Investing in information systems (e.g. management control systems) is an effective way to increase the capacity to handle information. The presence of slack resources, on the other hand, reduces the amount of information to be processed. These arguments suggest clear links between corporate diversification and slack, and between corporate diversification and management control systems.

The effect of corporate diversification on budgetary slack.

The relationship between diversification and the presence of slack in subunit budgets was come from the Galbraith's model in which he considers slack as a strategy to reduce the information processing need by corporate management. A lower level of required performance (i.e. more slack) reduces the chance of a target being missed; and, the fewer the exceptions that need to be investigated, the less the overload on the top (Merchant and Manzoni, 1989). Moreover, it is more likely that corporate managers in diversified firms are less familiar with the operations of the distinct businesses (Campbell *et al.*, 1995). This implies that corporate managers are at a disadvantage to uncover slack (Onsi, 1973). So, this study can conclude that:

H1a: diversification is positively associated with slack.

However, this hypothesis can not clearly determine why this slack is happened more in more diversified firms. At least, two arguments proposed why this slack present in more diversification firms. First, the corporate let this slack exist to reduce the processing of information at the top; and second the corporate unable to detect and control its business unit so the corporate make unreasonable budget to achieve by the business unit manager (more slack)

The effect of corporate diversification on budgetary control and incentive systems.

As aforementioned, diversification leads to increase in the capacity of information processing by the corporate. This condition will make the corporate almost impossible to use direct informal interventions in business unit operations as a tool of control. Instead, much of the control in diversified firms will be achieved through financial results-oriented or budgetary controls (Merchant, 1981; Salter, 1973; Berg, 1969). Monitoring financial results requires less intimate knowledge of the activities of the various business units and simplifies top management information processing (Hill and Hoskisson, 1987).

Budgetary controls have been described in the management accounting literature in terms of the amount of emphasis placed on meeting the budget, that is, the extent to which business unit managers' performance is evaluated on their ability to attain budgetary objectives in each reporting period. A budgetary control process characterized by a high degree of emphasis on meeting the budget is sometimes also referred to as a "tight" or rigid budgetary control style (Anthony and Govindarajan, 1998, p. 436). Since corporate managers in diversified firms

lack specific operational knowledge about the various activities of their business units, it is expected that they will emphasize accounting-based budget performance. In other words, most interactions between corporate and business unit managers of diversified firms are likely to evolve mainly from budget-related issues, as opposed to the operational details of the business.

H1b: diversification is positively associated with an increased emphasis on meeting accounting-based budgetary objectives.

In addition to the greater emphasis placed on budgetary performance, increased diversification is also expected to increase corporate management's reliance on performance-based incentives. Again, tying rewards to accounting based budgetary performance standardizes the performance evaluation process across a diverse set of businesses and reduces the information processing burden on corporate management.

Furthermore, agency theory predicts that incentives should be most intense when business unit managers are able to respond to them (Milgrom and Roberts, 1992). Business unit managers in diversified firms are likely to have discretion about more aspects of their work, and hence, have greater marginal impact on performance (Bruns and Waterhouse, 1975). Moreover, as stated in *H1b*, corporate managers in diversified firms primarily monitor outcome-based budget results without getting involved in, and having a great understanding of, the business unit operations as such. Agency theory suggests that formal monitoring of outcome-based performance and incentives are complementary.

Or, conversely, if an agent's actions can be observed more directly, as is likely in focused firms, desired actions can be induced with lower risk premium costs (Baiman *et al.*, 1995). Thus, this proposal expects that the greater autonomy of business unit managers and the greater reliance on outcome-based budgetary controls in diversified firms is associated with a higher percentage variable compensation. There are several dimensions, however, to how monetary incentives can be administered. One dimension is the reliance placed on subjectivity as contrasted with pre-specified objective formulae in determining bonuses. Again, corporate managers' lack of intimate knowledge about the activities and idiosyncrasies of the business units is likely to result in objective, formula based incentive compensation contracts based on what is monitored, that is, financial budgetary performance. Another dimension of incentive bonus determination is the extent to which the bonus is based on total corporate performance, business unit performance, or a combination of both. If there are few operational synergies among business units and they are essentially autonomous, tying a business unit manager's bonus to corporate performance may be counterproductive because it makes the bonus dependent on things outside the individual business unit manager's control (Milgrom and Roberts, 1992). Hence, in diversified firms with essentially unrelated businesses, corporate performance is a noisy measure that provides relatively little information about any individual business unit manager's actions (Keating, 1997; Bushman *et al.*, 1995).

H1c: diversification is positively associated with more intensive, objectively determined, and individual business unit performance-based incentive systems.

However, the extent to which corporate managers choose to curtail, or otherwise tolerate, slack in business unit budgets, as well as the type of budgetary controls and incentive systems they implement, may not be uniform across the corporation, but also be attuned to the strategic needs of individual business units.

3.6. The effect of business unit strategy on budgetary control, incentives and budget slack

Business unit strategy (or, competitive strategy) refers to how a business unit competes in its market to achieve a competitive advantage relative to competitors (Porter, 1980). The strategy literature maintains that business units within the same firm that pursue different competitive strategies will require different organizational arrangements for effective strategy implementation (Porter, 1980). Budgetary control and incentive systems are part of such organizational arrangements and are viewed as playing a supportive role within the strategy implementation process (Merchant, 1998). Research in management accounting has indeed shown that the way in which a business unit competes in its market - that is, its competitive strategy - influences the design of the management control system (Langfield-Smith, 1997).

Moreover, organization theory has suggested that slack may be needed to successfully pursue strategies that require a high degree of flexibility to respond

effectively to changes in the environment (Bourgeois, 1981). Hence, competitive strategy is expected to have an effect on both the budgetary control and incentive systems implemented over business units, as well as on the presence of, or need for, slack in business unit budgets. Porter's cost leader-differentiation and Miles and Snow's defender/prospector strategy-typologies have been used most commonly in management accounting research. Cost leaders/defenders (CL/DEF) have a narrow product range and undertake little product or market development. They focus primarily on achieving a low cost position relative to competitors and therefore pursue cost reduction, exploit economies of scale, standardize the task environment, and produce standard, undifferentiated products. Differentiators/prospectors (DIF/PRO), in contrast, actively engage in market and product development. They strive to create something that is perceived by the customer as unique by pursuing superior product features, product innovation, customer service, brand image, etc. (Miles and Snow, 1978; Porter, 1980).

The initial research in using the business unit strategy as a contextual variable has been done by Govindrajana (1984). He Reconciled the Hopwood (1973) and Otley (1978) results relating to performance. He contended that their results were characterized by different levels of environmental uncertainty (defined as the unpredictability of the actions of customers, suppliers, competitors and regulatory groups). Accordingly, Govindrajana introduced environmental uncertainty as a possible moderator of the effects of supervisory style on strategic business unit (SBU) effectiveness (defined in terms of unit manager ratings of unit performance relative the supervisors expectations of performance). Than he

hypothesized that a moderate to low (high) budget emphasis coupled with higher (lower) environmental uncertainty will lead to increased SBU performance. His results generally confirmed this attention: a significant positive correlation was found between environmental uncertainty and the use of subjective criteria for performance appraisal in the highest performing SBUs, and no such correlation in the lowest performing SBUs.

The moderating effects of business strategy were the focus of studies by Govindrajan and Gupta (1985) and Govindrajan (undated). Govindrajan and Gupta adopted Govindrajan's (1984) definition of SBU effectiveness and supervisory style (subjective/formula based), both as previously described. They also added a further dimension of supervisory style: a reliance on short/long run criteria in the determination managerial incentives bonuses. They classified strategies as ranging from build to harvest. A build strategy is characterized by a desire to increase market share while the objective of maximizing short-term earnings and cash flow is indicative of a harvest strategy.

Govindrajan & Gupta (1985) argued that SBU effectiveness would be enhanced where there is a correct match between the incentive compensation and the strategy adopted by the unit. That is a reliance on long run (short run) criteria in the determination of incentive bonuses should be matched with a build (harvest) strategy, combined with a greater reliance on long run criteria, promotes (reduces) effectiveness, while the effect of a reliance on short run criteria on effectiveness was independent of strategy. They also argued, and found, that greater reliance on a subjective approach to the determination of incentive

bonuses will have a stronger positive impact on effectiveness under a build rather than a harvest strategy.

Govindrajan (undated) argued that a supervisory style characterized by a high budget emphasis will enhance SBU effectiveness (as defined by Govindrajan, 1984) for defender SBUs, but will reduce effectiveness for prospector SBUs. In relation to defender SBUs, his theory was based on the notion that defenders was based on the notion that defenders face relatively low environmental uncertainty, have stable products and markets and thus relatively accurate budget estimates, and emphasize efficiency which implies the need to identify performance deviations. On the other hand, prospectors face high environmental uncertainty, are unable to formulate accurate budgets, emphasize new product development which implies the need to use longer term performance measures, require extra resources, via budgetary slack, for innovation. The results of Govindrajan's (undated) study of SBU managers of 24 Fortune 500 firms, after controlling for corporate strategies and size, strongly supported the hypothesized relationships.

The effect of business unit strategy on budgetary slack.

DIF/PROs face relatively more uncertainty than CL/DEFs because they have broad product lines, engage in product innovation, deal with products that have not yet crystallized, etc. CL/DEFs, in contrast, keep their essentially undifferentiated product offerings relatively stable over time (Fisher and Govindarajan, 1993; Govindarajan, 1986; 1988). Hence, the success factors underlying DIF/PRO strategies tend to be of a long-term nature and difficult to

quantify, which not only makes reliance on formal accounting-based budgetary controls less suitable (see below), but also requires a higher degree of flexibility to respond effectively to changes in the environment. One way to hedge against uncertainty is through slack resources, which provide a cushion to support the exploitation of market opportunities and a source of funds to experiment with product innovations (Bourgeois, 1981; Cyert and March, 1963).

In addition to a different “need” for slack resources, both strategies also typically operate in dissimilar settings that may affect the ability of corporate management to detect slack. Merchant (1985b) argued that the ability to set accurate budget targets and to measure performance precisely, which is likely to be the case for CL/DEF-businesses, provides the opportunity to prevent the introduction of slack. Moreover, Williamson (1964) maintained that slack creation is potentially restricted as cost cutting, standardization, economies of scale, etc. are emphasized, which is again likely to be the case for CL/DEFs. For DIF/PRO businesses, on the other hand, corporate management simply may not wish to reduce slack to the point where it chokes innovation or prevents managers from exploring new market opportunities. In sum, for CL/DEFs (DIF/PROs), there is both less (more) utility for slack and a higher (lower) chance of detecting it. Hence, this study expects that:

H2a: differentiators/prospectors have more budget slack than cost leaders/defenders.

The effect of business unit strategy on budgetary control and incentive systems.

Prior research has not produced conclusive evidence on the relationship between management control systems and competitive strategy (Langfield- Smith, 1997). For instance, Simons (1987; 1988) found that prospectors emphasize rigid budgetary controls to a greater extent than defenders, which conflicts with the widely held view that innovation and differentiation are best achieved in organizations that minimize formal controls. Other studies usually support this view, however, which has put the balance of evidence for superior performance in favor of the combination of DIF/PRO-strategies with less rigid (budgetary) controls (Govindarajan, 1988; Govindarajan and Fisher, 1990). Hence, in line with the majority of prior empirical evidence, the hypothesis is:

H2b: differentiators/prospectors put less emphasis on meeting the budget than cost leaders/ defenders.

With respect to the incentive system, managers in charge of DIF/PRO businesses are likely to receive a lower portion of their salary tied to accounting-based budgetary performance because of the uncertainty involved in pursuing DIF/PRO strategies. For example, engaging in product and market innovation may require investments that decrease current-period accounting profits despite their potential to generate substantial, but uncertain, future earnings. Incentives contingent on accounting-based measures may therefore discourage managers from undertaking such investments. In other words, since the critical success factors underlying DIF/PRO strategies tend to be long-term in nature and more difficult to quantify, incentives tied to accounting-based budgetary performance

become less suitable because they potentially encourage managers to be myopic in their decisions (Baber *et al.*, 1996; Clinch, 1991). Similarly, if accounting-based measures of performance are a less adequate reflection of the managers' actions in DIF/PRO units than in CL/DEF units, it is expected that incentive payments to managers in DIF/PRO units will be conditioned on subjective performance evaluations by corporate management to a greater extent than in CL/DEF units (Bushman *et al.*, 1995). Collectively, this suggests that:

H2c: incentives for managers in charge of differentiation/prospector business units are less intensive and less objectively-determined compared to incentives for managers in charge of cost leader/defender business units.

There is no hypothesis at the business unit level with respect to whether incentives are business unit v. corporate performance-based. The relevant factor for this dimension of incentives is whether or not there are intrafirm interdependencies (e.g. synergies among business units), and this was discussed as part of H1c.

3.7. The effect of budgetary control and incentive systems on budgetary slack

The presence of slack in business unit budgets is affected by the design of the budgetary control and incentive system, either because these systems produce pressures on business unit managers and/or affect the likelihood that slack is detected (Merchant, 1985a). Holding business unit managers responsible for clearly defined results areas, adequate monitoring of performance in these areas, and providing compensation for good results, generally is viewed in the

(economics-based) accounting literature as an effective way to stimulate goal-directed management behavior. As hypothesized in *H1b* and *H1c*, diversified firms are expected to rely on both tight monitoring of budgetary performance, and intensive, formula-based, and business unit performance-based incentives. A strong (if not exclusive) emphasis on budgetary performance should provide clear guidance to managers as to what is considered important. A high percentage variable compensation should increase the likelihood that bonus amounts are significant enough for managers to influence their behavior.

Formula-based and individual performance-based incentives should reduce randomness (increase controllability) by eliminating subjectivity and dependence on performance fluctuations caused by other business units. Under these conditions, and assuming that managers seek to maximize personal income, high business unit performance will be pursued since it translates directly into higher personal income. This, however, signals the performance potential of the business and reduces the propensity to build slack over time (Milgrom and Roberts, 1992). Hence, it follows that *tight budgetary controls (H3a)* and intensive, objectively determined, and business unit performance based incentives (*H3b*) are negatively associated with slack.

However, this view is not universally accepted and empirically supported. Besides a more balanced view on whether slack is good or bad, organizational behaviorists claim that management control and incentive systems do not necessarily curtail slack. Instead, they often cause the opposite effect because they expose managers to higher business pressures and risk (Ghoshal and Moran,

1996). A combination of controls that hold business unit managers strongly accountable for their performance and formula-based incentives tied to achieving budget targets imply that salary, resources, and career prospects become fully dependent on the ability to meet the budget. Business unit managers who miss the target face the prospect of intervention by corporate management, the loss of annual bonuses, the loss of business unit resources, and ultimately the loss of their jobs (Merchant and Manzoni, 1989). As such, it is in the interest of the managers to do everything possible to meet the budget, such as building slack into the budget. Hence, the impact of budgetary control and incentive systems on slack is not straightforwardly determined. The claims by organizational theorists are not consistent, and empirical evidence is inconclusive. The empirical findings will indicate whether *H3a* and *H3b* are supported as stated, or whether alternative explanations prevail.

H3a: tight budgetary controls are negatively associated with slack

H3b: business unit performance-based incentives are negatively associated with slack.

3.8. The Moderating Effects Of Culture and value

The moderating effect of power distance on the relationship between budget emphasis and budgetary slack

Recent accounting studies incorporating some or all Hofstede's dimensions are mostly applied in areas of behavioral research. It was started from Chow et al. (1991) who found the insignificant relation between individualism

and performance by controlling team pay, and then followed by many numerous researchers such as Harrison (1992; 1993), O'Connor (1995), Lal et al. (1996), Nicholson et al. (1997), etc. Although this is a sign of widening the area of research in behavioral research of accounting, but many of them revealed the contradictory results. For example, while Chow et al. (1996) examined the effect of three Hofstede's national culture dimensions (Individualism, Power distance and uncertainty avoidance) on the relationship between control system tightness, procedural controls, and centralized directives and found the significant one, Harrison (1992) showed the contradictory results. Both had the same sample which is between Anglo-American managers and Singaporean manager.

With respect to budget emphasis, a significant interaction of culture that was developed earlier by Hofstede (1980) is likely to happen. Subordinates or managers are likely to react favorably to a high budget emphasis evaluative style in a high power distance society because a preference for a non-consultative, decisive leadership style in high power distance societies is also likely to produce a preference for high RAPM (reliance on accounting performance measure) in evaluative style (Harrison, 1993, p. 322). By contrast, subordinates in low power distance societies are likely to react favorably to a low budget emphasis evaluative style because this style provides the opportunity for subordinates to be consulted (Lau *et al.*, 1997, p. 179). By the favorably reaction of subordinates in high (low) power distance in budget emphasis, the slack that is created by managers tend to be low (high).

H4a: There is a positive significant interaction between high Power Distance and budget emphasis affecting budget slack

H4b: There is a negative significant interaction between low Power Distance and budget emphasis affecting budget slack

The moderating effects of Value Orientation towards Innovation on the relationship between business unit strategy and budgetary slack

As stated before, Value Orientation towards Innovation refers to the degree of importance that managers place on being innovative and creative at work (O'Really *et al.*, 1991). Organizations that pursue creative and innovative business strategies tend to engender high VOI among their managers (Russel and Russel, 1992). Once again, differentiator/prospectors, according to management strategic literature, seek for specific market share by introducing effective, efficient, and innovative product. In that condition, managerial VOI have an important role in the relationship between SBU strategy and budget slack.

A high managerial's VOI tends to seek the companies that will allow them to work creatively and more innovative (Subramaniam and Mia, 2001). Differentiator/prospector companies give this kind of managers the possibility to conduct their job that way. The managers in differentiator/prospectors are pushed to be that way to introduce effective and innovative products. Another explanation why high managerial's VOI seeks Differentiator/prospector is because in that kind of companies are likely to face higher uncertainty than cost-leaders/defenders (Govindrajan, undated). In contrast, low managerial's VOI tends to seek cost

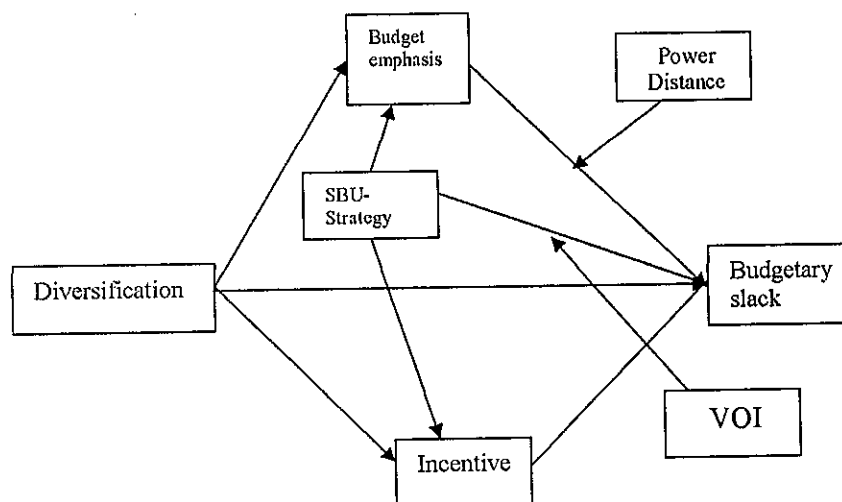
leaders/defenders that will give them a “nice” work condition and “yes-sir oriented”.

H5a: There is a significant positive interaction between differentiator/prospector and manager’s VOI affecting budget slack.

H5b: There is a negative significant interaction between cost leadership/defender and manager’s VOI affecting budget slack.

To visualize the hypotheses above, figure I below presents the paths of the variables

Figure I: The Conceptual Framework



3.9. Methods of Analysis

Structural Equation Modeling

The most obvious difference between SEM and other multivariate techniques is the use of separate relationships for each of a set of dependent variables. In simple terms, SEM estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying the structural model used by the statistical program.

According to Hair (1995), SEM at least consists of seven stages which are:

1. developing a theoretically based model
2. constructing a path diagram of causal relationships
3. converting the path diagram into a set of structural and measurement models.
4. choosing the input matrix type and estimating the proposed model
5. assessing the identification of the structural model
6. evaluating goodness of fit criteria
7. interpreting and modifying the model, if theoretically justified

Although SEM commonly treats the variable as the unobserved variable, however, it is also allowed to treat the variable as the observed variable (either as aggregate or average scale of each construct). This test will produce a better confirmation about factors dimensions and the causality relationships between

those factors. This is also a common practice in studies in accounting (De Ruyter and Wetzels, 1999)

Moderated Regression Analysis (MRA)

MRA was also employed to examine the hypothesis 4 and 5. MRA is a statistical approach to examine the moderated effect, which is the relationship between dependent and independent variable that is affected by another independent variable. The moderator term is a compound variable formed by multiplying X_1 by the moderator X_2 which is entered into the regression equation. The moderated relationship is represented as:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_1X_2$$

Where:

a = intercept

b_1X_1 = linear effect of X_1

b_2X_2 = linear effect of X_2

$b_3X_1X_2$ = moderator effect of X_2 on X_1

The b_3 coefficient, the moderator effect, indicates the unit change in the effect of X_1 as X_2 changes. The b_1 and b_2 coefficients represent the effects of X_1 and X_2 respectively, when the other independent variable is zero. In the unmoderated relationship, the b_1 coefficient represents the effect of X_1 across all levels of X_2 , and similarly for b_2 . Thus, in unmoderated regression, the regression coefficients b_1 and b_2 are “averaged” across levels of the other independent

variables, where as in a moderated relationship they are separate from the other independent variables. To determine the total effect of an independent variable, the separate and moderated effects must be combined. The overall effect of X_1 , for any value of X_2 can be found by substituting the X_2 value into the following equation:

$$b_{total} = b_1 + b_3X_2$$

3.10. Summary

This chapter described the research methodology used to accomplish the study's objectives. The data was collected mainly from mail questionnaires and "a door-knocked procedure" was used to add a very low response rate obtained previously. Five hypotheses were developed to be tested. The Structural Equation Model was selected as the appropriate test to be used in testing the hypothesis one to hypothesis three. Hypothesis four and five were examined with moderated regression analysis. The sampling procedure, the definition, and operational measures of the variables were also discussed. The following chapter will devoted to analysis of results of the questionnaire and to discuss the profile of the respondents.

CHAPTER IV

DATA PRESENTATION

This chapter reports the results of the mail questionnaires on situational factors (business unit strategy and budget emphasis), firm's administrative systems (business unit strategy and incentives) and budgetary slack. The first section presents the results of a pilot study, including t-test to determine whether there is a difference between the subsidiaries of go-public and non go-public firms in answering the questionnaires. Testing of go-/non public responses is also necessary as there might different answers between the go public and non-go public respondents. The second section describes the profile of the respondents, and the third section presents the results of this study.

The results of the study are divided into some tests; consist of:

1. The evaluation of SEM assumptions
2. Full model analysis
3. Hypotheses tests

The last section of this chapter presents the discussion of the findings and their consistencies in theory.

4.1. Pre-test

The draft of 34 questionnaires was sent to the respondents (including, managers both include and exclude in the sample, graduate students of Diponegoro University, others that potentially have the capability to review this questionnaire) that represents the sample of this study.

The objectives of the pre-test were twofold. First, to determine the feasibility of the questionnaire and interest in the study objective. Second, to test the questionnaire to ensure that the questions were clear to the recipients. This pilot study was not conducted by mail; instead a “face to face approach” was employed to ensure the understandability of the questionnaire and their comments on the clarity of the questions and to follow further discussion regarding the questionnaire. The understandability and the clarity of the questionnaires are two key success factors in the field study research.

TABLE 2
DESCRIPTION OF PILOT STUDY’S RESPONDENTS

Respondents	No. of Respondents	%
Managers	10	29.5
Lecturers	4	11.5
Graduate student	10	29.5
Others	10	29.5
Total	34	100

Source: Primary data (2003)

Pilot study questionnaires sent to the managers (10 questionnaires), lecturers (4), graduate students (10), others (10). There were many revisions suggested by participants in the pilot. The most significant revision was the omitting of one of Hofstede’s Power Distance construct no C.12 (see Hofstede, 1980; p. 410)

"There are few qualities in a man more admirable than dedication and loyalty to his company" (Hofstede, 1980, p. 410)

However, this study did not view this questionnaire modification to be a problem either in a methodology or in the generalizability of the results. Indeed, revisions of questionnaire are common things in accounting, for example budgetary participations construct developed by Milani (1975) has been revised significantly by Pope and Otley (1996). Brownell (1982; 1983) and Harrison (1992) also made changes in job satisfaction's widely-used questionnaire developed by Weiss et al. (1967)

4.2. Full Scale Study

After evaluating the results of pilot and made some revisions, a questionnaire was mailed to the subsidiary companies of go public firms. Included in the questionnaire was a cover letter by the researcher which explained the purpose of the study and a self addressed envelope. The explanation of the confidential of this study was also explained clearly in it. Copies of all material sent as part of the full scale study is contained in Appendix. The results of the mailing are presented in table 3. Out of 505 questionnaires sent, only 43 were usable responses - after two months - were received from the mailing list, or eight percent responded.

E-mail questionnaire was worse! Out of 100 questionnaires (20 companies) sent, only 2 were usable, once again, leaving the very low response rate of this study, 2 percent. No follow up letter or call was made in order to put the cost to an end.

Because of the very low response rate - below the preliminary expectation - other questionnaires were made. Instead of using e-mailed questionnaires, "door to door" approach was done again. Although this method increased the response rate into 28 percent (56 out of 200), but the previous strict characteristics of the sample requirements are omitted. These data were taken from Industrial Area in Candi and Genuk, Semarang. There is no "go-public" requirement in this second batch of data collection. Total usable responses in the full scale study were 101 which was accounted for 11 percent (101 out of 905), comprise of 43 mail questionnaires (8 percent), 56 questionnaires (28 percent) and 2 questionnaires (2 percent) for mail, "door to door approach" and e-mail questionnaires, respectively.

TABLE 3
DATA COLLECTION

Descriptions	Questionnaires Sent	Returned	Percents
Mail questionnaires	505	43	8.51%
e-mail questionnaires	100	2	2.00%
total in the 1 st batch	605	45	7.43%
Second-batch data collc	200	56	28.0%
Total	805	101	12.54%

Source: Primary data (2003)

4.3. Homogeneity of two set samples

A major problem that might appear in data collection in this study is the changing of sample characteristics, from go-public firms to the unrestricted parents. This changing could devastate the result because of the bias that might be emerged. Many researchers (for example, see, Breuer, 1993; Pagano, 1993; Stoughton and Zechner, 1998; and Chemmanur and Fulghieri, 1994) believed that the riskier firms (diversified firms) that tend to go public are higher than the less ones. Moreover, Singh (1995) stated that firms in developing country, where there are significant growth opportunities (companies tend to diversify their operation to grab this opportunity), rely more heavily on equity financing rather than debt financing.

However, there are no research has been done to examine this tendency in Indonesia; therefore, additional conclusion can not be drawn. Respondents between subsidiaries of go public and non go-public firms might have different answer. Therefore, additional test to find out whether the present of bias because of this condition is strongly necessary. Although this is not common method in accounting, but I insist that this is a must, not just to eliminate the bias that might be presence, but also to determine the next step to be done in completing this study, if necessary.

This test was accomplished by comparing variance response score (Lavene's Test for Equality of Variances) and mean response score (t-test for equality of means) of each type of variable for the subsidiaries of go-public firms

with the subsidiaries of non go-public firms. The hypothesis for Lavenes's test for equality of variances for each case is:

$$H_0 : \text{VAR}(1) = \text{VAR}(2)$$

$$H_1 : \text{VAR}(1) \neq \text{VAR}(2)$$

Then, a series of t-test were run to determine whether there was a statistically difference for each the pairs of means response score. For each case the hypothesis can be stated as:

$$H_0: U1 = U2$$

$$H_1: U1 \neq U2$$

The results of those tests are shown in table 4.

Table 4:

T-TEST FOR GO/NON-GO PUBLIC PARENTS'S SUBSIDIARIES

VARIABLES	t	Sig.	Std. Err. Difference
Budgetary slack	-1.070	0.287	0.9416
Budget emphasis	-0.009	0.992	1.0935
Business Unit Strategy	-1.605	0.112	0.7683
Diversification	-0.370	0.712	0.3046
Incentive	0.191	0.849	0.0025

Source: primary data processed by SPSS 11.05

In examining the difference in the mean response score for each type of variables, t-test was used. The observed probability (equal variance assumed row) were 0.287, 0.992, 0.12, 0.712, 0.849 for BDGSLACK, BDGEMPH, STRATEGY, DIVRST, INCNTV, respectively. These observed probabilities were above the significance level of 0.05, which indicate that there is no

difference between the responses from the subsidiaries of go public firms and the subsidiaries of non go public firms.

This test can also be generalized into non-response bias test. Where Oppenheim (1973) in Imam Ghozali (1995) suggested two methods of testing to find out whether non response bias is presence which are by comparing respondents with non respondents on the original sampling list and by comparing early respondents with late respondents (in terms of their answers to the questionnaire). This study assumes that the late respondents are represented by the subsidiaries of the non-go public firms' sample.

The logical thinking of this assumption is, following Oppenheim's first method, non respondents can be proxied by the term of non go public firms' subsidiaries. Oppenheim himself stated "that non-response bias can be done by comparing the respondents with non respondents in terms of geographical location, sex, type of qualification and so on". Non go public firms' subsidiaries may be able to be included in this category because as previously stated, they did not become the sample targets.

4.4. Demography of the Respondents

Out of total 805 questionnaires allocated, 101 usable questionnaires obtained. Table 5 displays the distribution of the parent companies' subsidiaries activity sector. The main activity of respondents are food and beverages, textile mill products, lumber and wood products, plastics and glass products, metal and allied products, pharmaceuticals, and consumer goods.

TABLE 5
DISTRIBUTION OF RESPONDENTS BY ACTIVITY SECTOR

Activity sectors	Respondents	Percents
Food and beverages	33	32.67
Textile mill products	20	19.80
Plastic and glass products	23	22.77
Metal and allied products	14	13.86
Others	11	10.90
Total	101	100

Source: Primary data (2003) and Standard Trade and Industry Directory 2000

Food and beverages accounted almost one-third of total respondents that is 32.67%. While the respondents from plastic and glass products sector positioned in the second rank which placed their 23 respondents (22.77 percent) in the study, metal and allied products and others - in total - only accounted for one-fourth of the total respondents used in this study (13.86 and 10.90 percent, respectively)

In terms of education, the respondents are classified into five categories; D3, Sarjana, Master, Doctor, and others. Other refers to education level that was not mentioned in the questionnaire, such as elementary school, junior high school, senior high school, etc. Table 6 presents the distribution of respondents by education level.

The managers are commonly undergraduate students which is accounted more than one-half of total respondents (64.35). The distribution of respondents

result below shows an interesting phenomena, that the graduate alumni (Master and Doctor) employed by the sample companies are as large as others educational level. Both share the same percentage which is accounted for 17.82.

TABLE 6
DISTRIBUTION OF RESPONDENTS BY EDUCATIONAL LEVEL.

Education Level	Respondents	Percent
Undergraduate (S1)	65	64.36
Master	12	11.88
Doctor	6	5.94
Others	18	17.82
	101	100

Source: Primary data (2003)

4.5. Summary

The first section of this chapter provides the results of the pilot study and full scale study. The pilot study was conducted to determine the feasibility of the questionnaire. 34 prior questionnaires were sent to the managers, and there were many revisions suggested by participants. The most significant revision was the omitting of one of Hofstede's Power Distance construct no C.12 (see Hofstede, 1980; p. 410). In the full scale study, from 505 questionnaires sent in the first wave, only 43 is usable. E-mail questionnaire showed the worse response rate, 2 percent. (2 were usable out of 100 questionnaires sent). The questionnaires were sent to the other companies, commonly located in Semarang. Indeed, the sample characteristics were loosened; non go-public subsidiaries were allowed to be included in the sample. This, in turn, forced this study to compare the variance and mean response score of each type of variable for the subsidiaries of go-public

firms with subsidiaries of non go-public firms. The results showed that there were no differences in responses from those subsidiaries.

The second part of this chapter presents the profile of the respondents. Food and beverages and plastic and glass products activity sectors were accounted more than a-half of the total percentage. In term of distribution of respondents by educational level, undergraduate alumni was accounted the largest number of respondents.

CHAPTER V

RESULTS AND DISCUSSION

This chapter is concerned with the statistical analysis which is applied to test the study's hypotheses. Before presenting the findings, tests of data collected are conducted. These tests consist of test of normality, test of bias (bootstrapped the sample into 500), multicollinierity and singularity, evaluation of SEM's assumptions, internal consistency (reliability test), and validity tests. Since data collected to test the hypotheses came from the questionnaires sent to the respondents, it is necessary to run test of these data collected. The first section provides the results of data test and section describes the findings of hypotheses testing.

This study consists of twelve hypotheses. Eight hypotheses were tested by Structural Equation Model run by AMOS 4.01 and the rest of them (4 out of 12) were tested by Moderating Regression Analysis (MRA) run by SPSS 11.5.

5.1. Test of normality

The best known of all the theoretical probability distributions is the normal distribution, whose bell-shaped picture is familiar to anyone with a modicum of statistical knowledge. A random variable X is said to be normally distributed if its Probability Density Function (PDF) has the following form (Gujarati, 1995)

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} \exp\left(-\frac{1}{2} \frac{(x-\mu)^2}{\sigma^2}\right) \quad -\infty < x < \infty$$

Where μ and σ^2 , known as the parameters of distributions, are, respectively, the mean and the variance of the distribution. The main property of this distribution is symmetrical around its mean value.

If an analysis, either it is multiple regression or structural equation modeling (SEM), particularly maximum likelihood method (ML) which is known the most sensitive method of all, is not normally distributed, then the probability of bias in the results of the study is higher. The assessments of normality employed usually consist of twofold: first univariate and second, multivariate. Table 8 displays the normality tests.

TABLE 7
TESTS OF NORMALITY

Assessment of normality						
	min	Max	skew	c.r.	kurtosis	c.r.
Strategy	5	25	-0.9041	-3.7093	0.9438	1.9361
Divrst	2	19	2.0872	8.5633	3.1066	6.3729
Incntv	0	0.3	0.2352	0.9652	-0.7509	-1.5405
Emphs	7	35	-1.1111	-4.5586	1.3117	2.6908
Bdgsick	7	25	-0.9425	-3.8668	-0.1503	-0.3084
Multivariate					11.6992	7.0265

Source: primary data processed by AMOS 4.01

As from table 7, it is clearly stated that almost all the critical ratio (except INCNTV and STRATEGY), are far beyond the critical value, ± 1.96 (confidence interval = 0.95). Therefore, univariate and multivariate tests of skewness and kurtosis detected non-normality of the data, which may render significance tests invalid.

To check the danger impact of the un-normal data, this study employed bootstrapping method. According to Efron (1982), Bootstrapping is a versatile

method for evaluating the empirical sampling distribution of parameter estimates. Bootstrapping does not rely on single model estimation, but instead calculate parameter estimates and their confidence intervals based on multiple estimations (Bollen and Stine, 1993). Bootstrapping, is accomplished in four basic steps.

1. The original sample is designated to act as the population for sampling purposes.
2. Original sample is resampled a specified number of times (could be up to several thousand) to generate a large number of new samples, each a random subset of the original sample.
3. The model is estimated for each new sample and the estimated parameters are saved.
4. Final parameter estimates are calculated as the average of the parameter estimates across all of the samples.

To check the robustness of the results, 500 bootstrap samples were generated (by considering the samples collected previously; 101 samples). Mean of the bootstrapped estimates are compared with the estimates obtained by the Maximum Likelihood to find out the robustness of the results. Table 8 provides the result (standardized weight):

TABLE 8:
ESTIMATION OF BOOTSTRAP METHOD

REGRESSION WEIGHT			BOOTSTRAP METHOD				
PATH	Estimate	S.E.	SE	SE-SE	Mean	Bias	SE-Bias
Emphs <-- divrst	0.2123	0.1146	0.1223	0.0039	0.2235	0.0112	0.0055
Emphs <--strategy	-0.3904	0.1375	0.1406	0.0044	-0.3988	-0.0084	0.0063
incntv<--divrst	0.0021	0.0016	0.002	0.0001	0.0023	0.0002	0.0001
incntv<--strategy	-0.0022	0.002	0.0027	0.0001	-0.0027	-0.0005	0.0001
bdgslck<--emphs	-0.192	0.0637	0.0826	0.0026	-0.2044	-0.0124	0.0037
bdgslck<--strategy	0.5745	0.0914	0.1108	0.0035	0.5827	0.0083	0.005
bdgslck<--divrst	0.3371	0.0747	0.0781	0.0025	0.3395	0.0024	0.0035
bdgslck<--incntv	-8.3382	4.4621	4.0091	0.1268	-8.0672	0.2709	0.1793

Source: Primary data processed by AMOS 4.01

From table 8, this study assures that the result - because of the impact of the non-normality - that will be presented in the next sections is qualitatively harmless for the results. The SE gives the bootstrapped estimate of the standard error, which is simply the standard deviation of the parameter estimates computed across the 500 bootstrap samples. This figure should be compared to the approximate standard error estimates obtained by the maximum likelihood to further examine the harmless of this data to the results. Table 9 presents the comparison of standard error between the ML and bootstrap method.

TABLE 9
COMPARISON OF SE BOOTSTRAP-MAXIMUM LIKELIHOOD

PATH	SE – ML	SE-BOOTSTRAP	CHANGE
EMPHS ← DIVRST	0.1146	0.1223	0.06719
EMPHS ← STRATEGY	0.1375	0.1406	0.02254
INCNTV ← DIVRST	0.0016	0.0020	0.25000*
INCNTV ← STRATEGY	0.0020	0.0027	0.35000*
BDGSLCK ← EMPHS	0.0637	0.0826	0.29670*
BDGSLCK ← STRATEGY	0.0914	0.1108	0.21225*
BDGSLCK ← DIVRST	0.0747	0.0781	0.04551
BDGSLCK ← INCNTV	4.4621	4.0091	0.10152

Source: Primary data processed by AMOS 4.01

The difference between standard error of ML and bootstrapping method seems pretty frightening. Although many of the bootstrap standard errors are quite close to the approximate standard errors obtained originally by maximum likelihood, some of them are not. For example, while the first-two and the last-two paths show the close differences (6.719, 2.254, 4.551, and 10.152 percent; respectively) between ML and bootstrap, but the rest of them shows the contrary results. It means that the parameter estimates are significantly biased. However, we can not draw final conclusion that the data is un-normal and insist that the study is not “fit enough” to examined only based on this estimation. The tests still continue.

Back to table 8, SE-SE gives the approximate standard error of the bootstrap standard error. These entries are small through out the column, which means that the error of the standard error are small (ranges from 0.0001 until 0.1268).

The column labeled Bias, gives the difference between the bootstrap mean and original estimate. If the average estimate of the bootstrap samples is higher than the original sample, then the bias will be positive, and vice versa. Still from table 8, we can find out that all paths showed the harmless of the non-normality data to the results (except path incntv to bdgslck: 0.2709). However, this bias seems un-danger. Table 10 displays the result of the standardized regression weight for bootstrapped model.

TABLE 10
STANDARDIZED REGRESSION WEIGHT

Standardized Regression Weights Estimate			Bootstrap				
			SE	SE-SE	Mean	Bias	SE-Bias
emphs	<--divrst	0.1793	0.0991	0.0031	0.185	0.0057	0.0044
emphs	<--strategy	-0.2748	0.0925	0.0029	-0.2771	-0.0023	0.0041
incntv	<--divrst	0.1298	0.1151	0.0036	0.1377	0.0079	0.0051
incntv	<--strategy	-0.1154	0.1305	0.0041	-0.1328	-0.0175	0.0058
bdgslck	<--emphs	-0.2322	0.0884	0.0028	-0.2428	-0.0106	0.004
bdgslck	<--strategy	0.4892	0.0798	0.0025	0.4893	0.0002	0.0036
bdgslck	<--divrst	0.3444	0.078	0.0025	0.3393	-0.0051	0.0035
bdgslck	<--incntv	-0.1381	0.065	0.0021	-0.1329	0.0052	0.0029

Source: Primary data processed by AMOS 4.01

As stated in table 10, all the biases in the bootstrap methods are small, ranges from 0.0002 to 0.0079 (recall the cut-off point is 0.05)

Here, this study strongly recommends that the non-normality data showed above is harmless for the results reported next.

5.2. Univariate and multivariate detection of outliers

“Outlier is an observation that is substantially different from the other observations (i.e., has an extreme value). At issue is its representativeness of the population.” (Hair et al., 1995, p. 38). Outliers could become a problem when these outliers are not representative of the population, and can seriously distort statistical tests.

Outliers can be classified into one of four classes; first, procedural error such as data entry error or mistake in coding. Second, the result of an extraordinary event. Third, extraordinary observations for which the researcher has no explanation. Fourth, the observations that fall within the ordinary range of values on each of the variables but are unique in their combination of values across the variables.

In this study, the outliers are identified into two categories, univariate and multivariate perspective.

Univariate outliers detection

The univariate perspective for identifying outliers examines the distribution of observations and select as outliers those cases falling at the outer ranges of the distribution (Hair et al. 1995). In this study, detecting the univariate outliers was conducted by determine the Z-Score. Z-Score that is higher than 3.0 can be categorized into the outliers.

TABLE 11
UNIVARIATE OUTLIERS

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Zscore(STRATEGY)	101	-3.58370	1.58707	-2.3E-15	1.0000000
Zscore(BDGSLOCK)	101	-2.79557	1.02862	-1.5E-15	1.0000000
Zscore(EMPHS)	101	-3.73819	1.41366	-7.4E-16	1.0000000
Zscore(DIVRST)	101	-.78923	2.87321	2.96E-16	1.0000000
Zscore(INCNTV)	101	-1.35340	2.64739	-4.5E-16	1.0000000
Valid N (listwise)	101				

Source: Primary data processed by SPSS 11.05

As stated in table 11 above, there are two variables that considered as univariate outliers Z-SCORE $\geq \pm 3.00$, which are STRATEGY (-3.58370) and EMPHS (-3.73819).

Multivariate outlier detection

Not only univariate assessment of each observation across a set of variables that may render outlier, but also multivariate assessment is not free from this “disease”. Even if the study involves no univariate outliers, but it doesn’t mean that there won’t be multivariate outliers. As those observations may suffer from outliers after combining the observations, Mahalanobis Distance test is employed to detect them.

Tabachnick and Fidell (1996) and Hair et al. (1995) proposed that Mahalanobis D^2 (or Mahalanobis Distance) can be used for this multivariate outlier detection. Mahalanobis Distance is a measure of the distance in multidimensional space of each observation from the mean center of the observations (Hair et al. 1995). Below is the result of multivariate outliers

TABLE 12
OBSERVATIONS FARTHEST FROM THE CENTROID: MAHALANOBIS
DISTANCE

Observation number	Mahalanobis D^2	p1	p2
18	34.3465	0	0.0002
85	21.2012	0.0007	0.0026
86	16.4437	0.0057	0.0203
2	12.9004	0.0243	0.2319
45	12.4145	0.0295	0.1792
28	11.2952	0.0458	0.3177
39	11.1883	0.0478	0.2086
97	11.186	0.0478	0.111
46	10.7624	0.0563	0.1159
94	10.0603	0.0735	0.2085

Source: Primary data processed by AMOS 4.01

As hair et al. (1995, p. 224) stated that “a rule of thumb threshold value is not possible”, detecting multivariate analysis in this study was based only on the probability level. Beside that, identifying any observations with substantially higher values than the remaining observations, are needed to determine their furthest value from the centroid.

The p1 column, in the first row shows that, assuming normality, the probability of D_{18}^2 exceeding 34.3465 is 0. The p2 column shows, still assuming normality, that the probability is .0002 that the largest D_i^2 would exceed 34.3465. So does the second row, the probability of D_{85}^2 exceeding 21.2012 is .0007. While in the p2 column, by assuming normality that the probability of the largest D_i^2 would exceed 21.2012 is .0026. In the third row, the probability of D_{86}^2 exceeding 16.4437 is .0057 and the probability of D_i^2 would exceed the value of D^2 is 0.0203.

Small numbers in the p1 column are to be expected. Small numbers in the p2 column, on the other hand, indicate observations that are improbably far from the centroid under the hypothesis of normality. For the data used in this study, respondents no 18, 85 and 86 have the probabilities in the p2 column that is very small, so there is an evidence that these respondents should be treated as outliers under the assumption of normality

Conclusion of outliers' detection

From the detection of both univariate and multivariate outliers above, we may conclude that this study might be distorted by both the univariate (STRATEGY AND EMPHASIS) and multivariate outliers (respondents no 18, 85, and 86). However, this study will not attempt to delete ones. Hair et.al. (1995) mentioned that outliers must be viewed within the context of the analysis and should be evaluated by the types of information they provide. Moreover, they stated that:

“...when beneficial, outliers – although different from the majority of the sample – may be indicative of characteristics of the population that would not be discovered in the normal course of analysis...” (Hair et al., 1995, p. 64).

Hence, although this study is not explicitly state that this is beneficial, but, this study did not view this to be a problematic one either. After omitting some respondents (please see respondents profile section above), this study reports the real perceptions of the respondents. This treatment would be different

if DVRST and INCNTV variable became the outliers, these outliers would have been omitted. However, this was not happen, again, *Alhamdulillah*.

In the summary, they conclude that:

“.....The researcher has no single method best suited in every situation, but instead must make a reasoned judgment of the situation.”
(p. 64).

“...But if the outliers do represent a segment of the population, they should be *retained* to ensure generalizability to the entire population. As outliers are deleted, the researcher runs the risk of improving the multivariate analysis but limiting its generalizability...”(p. 66).

5.3. Multicollinearity and singularity

Gujarati (1995) defines the multicollinearity as the existence of a “perfect”, or exact, linear relationship among some or all explanation variables of a regression model.

To find out whether there might be a multicollinearity problem in the variable combination, the determinant of sample covariance matrix must show the very small value. A very small value is an indication the presence of multicollinearity or singularity (Tabachnick and Fidell, 1998).

The determinant of sample covariance matrix in this study is 4.7006e+002 or 470.06, which means that there is no indication of multicollinearity or singularity because this value is far beyond zero (0).

Correlation can also be employed to check the existence of multicollinearity. For which the correlation between independent variables that is

in the range 0.8 until 1 indicating there is multicollinearity. This study is also free from this kind of classical assumption (see Appendix).

5.4. Reliability and validity tests

Reliability is the degree to which a set of latent construct indicators are consistent in their measurements. The indicators of highly reliable constructs are highly intercorrelated, indicating that they all are measuring the same latent construct. As reliability decreases the indicators become less consistent and thus poorer indicators of the latent construct.

Validity is an ability of a construct's indicators to measure accurately the concept. Validity is determined to a great extent by the researcher, because the original definition of the construct or concept is proposed by the researcher, and must be matched to the selected indicators or measures.

Although validity and reliability are two interrelated conditions, but they are actually separate. Validity does not guarantee reliability, and vice versa. A measure may be accurate (valid) but not consistent (reliable). Also it may be quite consistent but not accurate.

This study employed these two measurements to examine the consistency and accuration of the construct.

Reliability tests

A commonly threshold value for acceptable reliability is 0.70 (Hair et al., 1995). Unless the research is exploratory in nature, the value below 0.70 is barely unacceptable. The composite reliability of a construct is calculated as:

$$\text{Construct reliability} = \frac{(\sum \text{standardized loading})^2}{(\sum \text{standardized loading})^2 + \sum \sigma^2}$$

Another measure of reliability is the variance extracted measure. This measure reflects the overall amount of variance in the indicators accounted for by the latent construct. Higher variance extracted values occur when the indicators are truly representative of the latent construct. The variance extracted measure is calculated as:

$$V \text{ variance extracted} = \frac{\sum (\text{standardized loading})^2}{\sum (\text{standardized loading})^2 + \sum \epsilon_j}$$

Standardized loading: the standardized regression weight of the construct; obtained directly from AMOS

ϵ_j = measurement error of the indicator (1- the square of the indicator's standardized loading)

Table 13

THE COMPUTATION OF THE CONSTRUCT RELIABILITY FOR EMPHS

Path from	Standardized loadings (a)	Reliability of indicator $(\sum \epsilon_j) 1-(a)^2$
E1 ← EMPHS	0.4781	0.77142
E2 ← EMPHS	0.7027	0.506213
E3 ← EMPHS	0.5155	0.73426
E4 ← EMPHS	0.4519	0.795786
E5 ← EMPHS	0.6132	0.623986
E6 ← EMPHS	0.5543	0.692752
E7 ← EMPHS	0.5209	0.728663
Total	3.8366	4.85308
$\Sigma (\text{Standardized loadings}^2)$	14.7195	
Construct reliability		0.752047

Source: Primary data processed by AMOS 4.01

The indicator reliabilities (measurement error) above show that each of the indicators exceeds 0.5 suggested by hair et al., (1995), which means that each of the indicators of EMPHS (budget emphasis) is answered consistently.

The construct reliability which is 0.752047 also gives the same final conclusion; the individual indicators are all consistent in their measurement (exceeds 0.7).

Budgetary slack

Table 14 below presents the computation of construct reliabilities for indicators of budgetary slack.

TABLE 14
THE COMPUTATION OF CONSTRUCT RELIABILITY FOR BUDGETARY
SLACK

Path from	Standardized loadings (a)	Reliability of indicator $(\sum a)^2$
Slk1 ← SLACK	0.8085	0.346328
Slk2 ← SLACK	0.45	0.7975
Slk3 ← SLACK	0.5366	0.71206
Slk4 ← SLACK	0.9097	0.172446
Slk5 ← SLACK	0.8041	0.353423
Σ (Standardized loadings) ²	12.31238	
Construct reliability		0.837911

Source: Primary data processed by AMOS 4.01

Although the indicator's reliability does not exceeds the threshold value 0.5, but the construct reliability support the thesis that Slk 1 to Slk 5 is an indicator of BDGSLCK (budgetary slack), as the value is 0.837911, above the minimum one, 0.7 (Hair et al., 1995).

Perhaps, the very low of the reliability of the indicators showed above because of the reverse coded on the questionnaire, which might not suitable for

the respondents in Indonesia. Perhaps, this is what many researchers said to be “the *Asian Disease*” in the study.

The argument above is supported by the pretty low variance for the reverse coded questionnaires item; questionnaire no. 2 and 3 for about only 0.20 and 0.29 respectively (compare them with the rest, which is accounted for about 0.65 to 0.83).

Business Unit Strategy

TABLE 15

THE COMPUTATION OF CONSTRUCT RELIABILITY OF BUSINESS UNIT STRATEGY

Path from	Standardized loadings (a)	Reliability of indicator $(\sum a)^2 1 - (a)^2$
S1 ← strategy	0.4102	0.831736
S2 ← strategy	0.5281	0.72111
S3 ← strategy	0.7776	0.395338
S4 ← strategy	0.5756	0.668685
S5 ← strategy	0.5869	0.655548
Σ (Standardized loadings) ²	8.285187	
Construct reliability		0.71686

Source: Primary data processed by AMOS 4.01

From the table above, it is clearly stated that each indicator is answered consistently, except S3, which had the lowest value 0.395338, below the threshold value 0.5. However, the construct reliability for this questionnaire is 0.71686, which posits that all the items (S1 to S5) indicate the common latent (unobserved) construct.

Confirmatory Factor Analysis and Validity tests

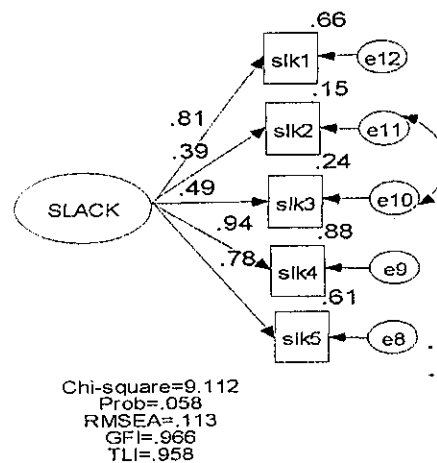
As previously mentioned that although reliability and validity are two interrelated conditions, but both of them are actually separate. Validity does not

guarantee reliability, and vice versa. Hence, validity test is needed to measure the accuracy of the indicators that explain the variable. Confirmatory Factor Analysis (CFA) is particularly useful in the validation of scales for the measurement of specific constructs.

Budgetary slack

The results showed below that each questionnaire quite valid to measure the extent of budgetary slack behavior of the respondents. This is shown by the significant correlation between each questionnaire to the total score of the questionnaire ($p < 0.01$)

FIGURE 3: CONFIRMATORY FACTOR ANALYSIS OF BUDGETARY SLACK



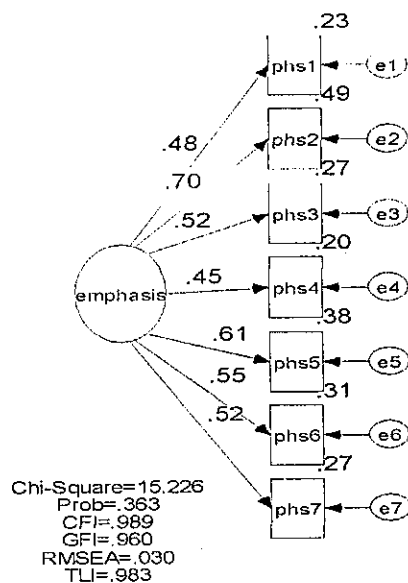
Source: Primary data processed by AMOS 4.01

From the measures indices above, we can find out that the model is quite fit. Out of four indices used, three measures showed a good fit. Only RMSEA exceeded the threshold value (0.08).

Budget emphasis

From table below, clearly stated that all the indicators used in this study quite acceptable to measure the extent of budget emphasis. This is explicitly stated from the significant correlation between the total score of the questionnaire (EMPHS) and each item of the questionnaire ($p < 0.01$).

FIGURE 4: CONFIRMATORY FACTOR ANALYSIS OF BUDGET EMPHASIS



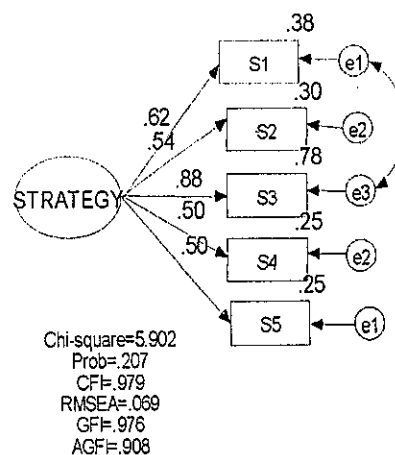
Source: Primary data processed by AMOS 4.01

From the figure 4 above, it is clearly stated that the model is fit for all the measures used. The loading factors are all significant in 1 percent cut off (not shown, please see appendix), indicating that the indicators quite valid to used.

Business Unit Strategy

Once again, from the statistical results, this questionnaire seems quite suitable to be applied in Indonesia, as the significance sign of table showed below is quite strong ($p < 0.01$).

FIGURE 5: CONFIRMATORY FACTOR ANALYSIS OF BUSINESS UNIT STRATEGY



Source: Primary data processed by AMOS 4.01

5.5. FULL STRUCTURAL EQUATION MODELING ANALYSIS

This study examined the model fit of the full structural equation modeling (SEM) and divided this analysis into twofold:

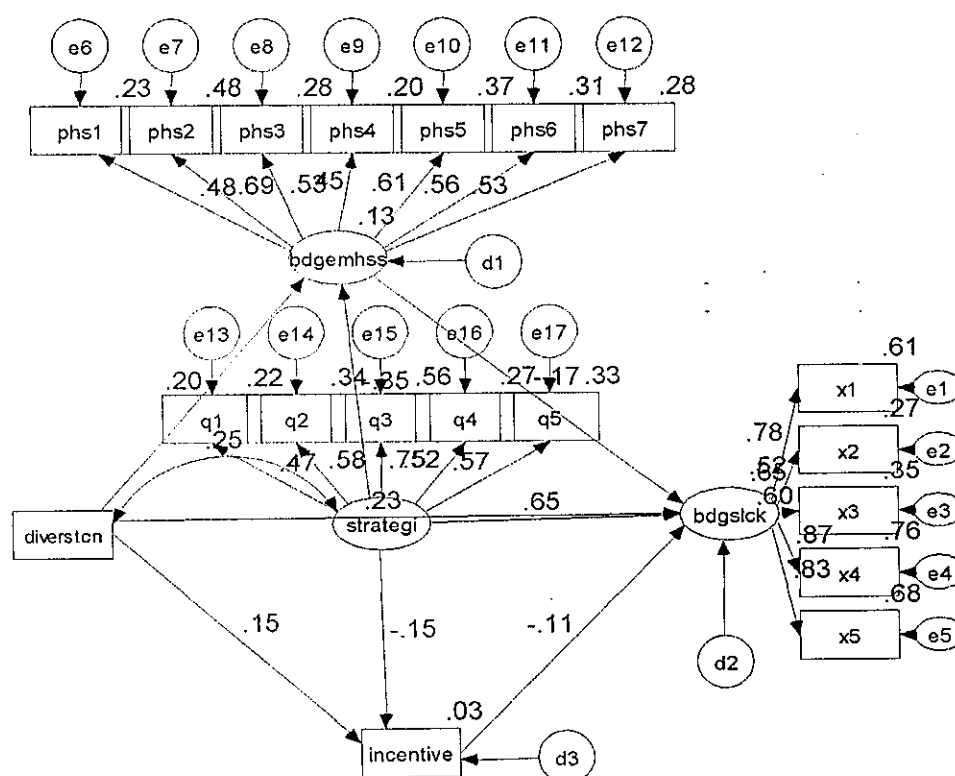
1. threat the model as an unobserved variables
2. threat the model as an observed variables (by using the aggregate scale for each construct) and not as latent variables with multiple indicators.

After the value to determine the “best fit” model is obtained, deciding which model is adequately fit is necessary to give a broad understanding about “plotting the budgetary slack determinants into some paths”.

Treating the variables as unobserved variables

Perhaps, this is the most well-known method to undergo Structural Equation Modeling. However, it seems like this method is not quite well enough to measure the model fit. As stated in the next table – instead of resulting the best fit model, this “black box approach” yielded “a poor-fit model”.

FIGURE 6: THE UNOBSERVED MODEL COMPUTATION



HYPHOTHESES TESTS
 chi-square=276.839
 Prob=.000
 df=145
 gfi=.800
 tli=.739
 cfi=.778
 rmsea=.095
 agfi=.738

Source: Primary data processed by AMOS 4.01

From figure above, we can find out that all the measures of fit of the model do not seem to report the merit of a model. Probability (P) for example, which is the probability of getting as large a discrepancy as occurred with the sample, does not support the hypothesis that the model fits perfectly in the population. This was proven by the very small value of P (0.000; which is below the cut off point 0.05) which rejects posit stated the data are not significantly different from quite a wide range of theories.

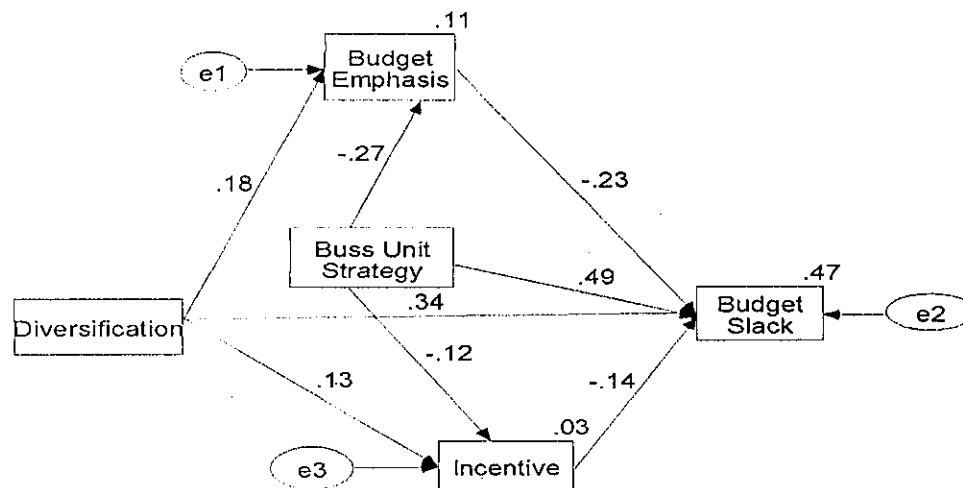
GFI, given the value approximately 0.800 which conclude that the model is poorly determined the data of this study. All other measures support this view, including TLI, CFI and RMSEA for 0.739, 0.778, and 0.095 respectively.

Hence, this study arrives at the final conclusion to seek for the best fit model, "this model is too far to be said "fit enough" to use the data in this study". Hence, further analysis might not suitable using this approach.

Treating the variables as the observed variables

This method incorporates manifest variable or observed variables into the analysis by using aggregate scale for each construct and not as latent variables with multiple indicators. Although this method seems pretty rare applied in Indonesia, however, De Ruyter and Wetzels (1999) supported this method and asserted that this method is common practice in accounting.

FIGURE 7: THE OBSERVED MODEL



MODEL FIT MEASURES
 chi square=5.111
 prob=.078
 rmsea=.125
 cfi=.960
 gfi=.980
 tli=.800
 agfi=.853

Source: Primary data processed by AMOS 4.01

From model fit measures above, it seems like the model fit looks better than before. Probability boosted from 0.0000 to 0.075, which an indication of a better model. However, this is not the only single measurement that describes whether the model is fit or not. Other indices such as RMSEA, CFI, GFI, TLI and AGFI are needed.

As stated before, although the probability is not significant on 5 percent cut off, indicating the data are not significantly different from the theory, and

supported by other indices such as CFI and GFI, but the weaknesses arose, because

1. RMSEA (0.125) is stuck above the threshold value (0.08)
2. TLI (0.800) falls below the bottom limit (0.95)
3. AGFI (0.853) slightly lower from the AGFI's cutoff value (0.94)

From all the limitation above, this study does not consider that this model is fit. In fact, the P-based measurement only is unreliable:

“Our opinion... is that this null hypothesis (or perfect fit) is implausible and that it does not help much to know whether or not the statistical test has been able to detect that it is false.” (Browne and Melse, 1992, p. 78 in Arbuckle and Wothke, 1999, p. 399).

RMSEA probably acts a better measure in determining whether the model is fit or not (based on the population discrepancy)

“... We are also of the opinion that a value of about 0.08 or less for the RMSEA would indicate a reasonable error of approximation and *would not want to employ* a model with a RMSEA greater than 0.1.” (Browne and Cudeck, 1993, In Arbuckle and Wothke, 1999, p. 403)

Because one of the main objectives of this study is to seek the best model fit (or the perfect one if possible), then a modified observed variables treatment method is employed, by correlating the DIVRST and STRATEGY

The modified observed variables

In this modified observed variables method, this study is slightly different from the unmodified observed variables. The difference is on the

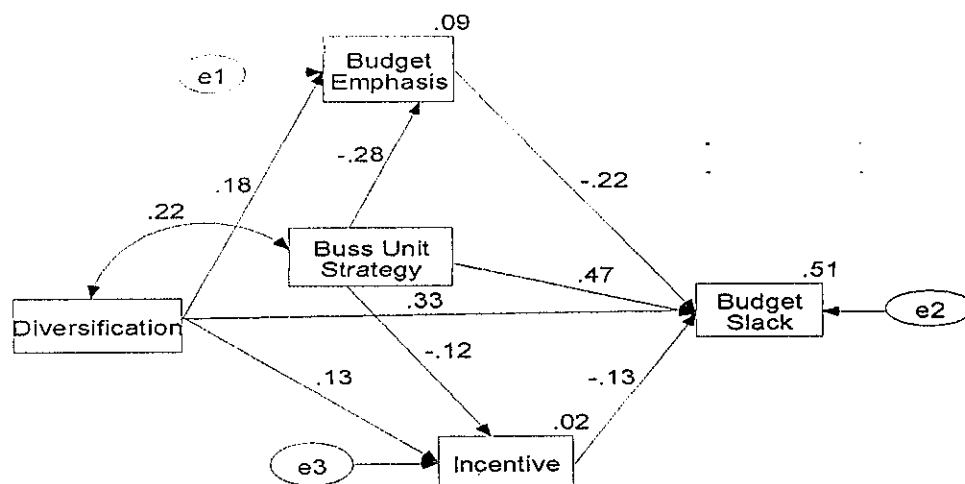
correlation between DIVRST and STRATEGI. However, this is done not only because of “the unsatisfied results”, but also there is an argument implicitly explains this correlation from well-known authors in strategic management theory (Hill and Jones, 1995).

They stated that while the number of acquired firms increases, it doesn't mean that the companies would stay in the same generic strategy they have used. For example, Company A previously (when it was the independent company) used a cost-leadership strategy, but after acquired by Company B, they change their strategy into differentiation strategy. This change isn't forced by the internal top management (in this case, unit business), but from the external factors. Continuing the example above, A not only acquired B, but also C, which was the main competitor of B. However, after acquiring B, B is not allowed to operate commercially, instead, they have to provide the resources needed by B. It means that B lost the main competitor it had, therefore, B tried to strengthen its position by changing its strategy into differentiator.

This simple scenario hopefully can plot this model into a new one, by adding the correlation between DVRST and STRATEGY.

Figure 8 here displays the modified observed variables treatment model.

FIGURE 8: THE MODIFIED OBSERVED MODEL



MODEL FIT MEASURES
 chi square=.193
 prob=.660
 rmsea=.000
 cfi=1.000
 gfi=.999
 tli=1.104
 agfi=.988

Source: Primary data processed by AMOS 4.01

All the model fit measures indicate that the model is very fit. This is shown by the probability level which is 0.660, RMSEA 0.000, CFI= 1.000, GFI=0.999 TLI=1.104, and AGFI 0.988. All measures are above the threshold value.

5.6. Hypothesis testing

Before presenting the results of hypothesis testing, a brief review is given of the research methodology employed and the key variables involved. As discussed in chapter 3, the extent of firm's administrative systems (budget emphasis and incentive) and business unit strategy and endogenous variable (budgetary slack) are obtained from the primary research by five point likert scales.

In the case of budgetary slack indicators, respondents were asked to rate his/her deviation in achieving the budget target. The measurement consist of 5 items (items 1-4 used 5 likert's scale (from definitely false until definitely true), and item 5 is fully anchored question asking whether the budget is very easy to attain until impossible to attain.)

Diversification was simply measured by the number of separate entities in each company (entity) as a proxy the degree of diversification at the highest organizational level. The sample requirements were conditioned by the type of diversification (both the corporate and its subsidiaries), which are the parents must be go-public firms and at least have two subsidiaries. However, after first wave data collection, which only reach 45 questionnaires (after two months), this restrict requirement was loosen, by extent the samples restriction into non-go public firms, but still considered that their parents must had at least two subsidiaries.

Incentive variable was measured by asking the respondents to indicate the percentage of their compensation that is performance-dependent (achieving

the target). Moreover, the budget emphasis variable was measured by asked the respondents to indicate their perceptions about the amount of emphasis placed on meeting the budget in budgetary control process. The questionnaire consists of 7 items scoring from 1 (definitely false) to 5 (definitely true).

This study also employed two moderating variables, which are Value Orientation towards Innovation and Power Distance. Participants were asked to respond indicating the extend to which they as a member of their organization value the concept of innovation under each item in the instrument on a five point scale ranging from 1 (not at all) to 5 (to a very great extent).

Power distance and value orientation towards innovation were analyzed separately, as AMOS 4.1 does not provide moderating analysis. In other words, exclude power distance and VOI, the variables were analyzed by SEM (hypothesis 4 and 5). Recalling the SEM's assumptions, SEM and MRA (moderating regression analysis) are two separate and independent analyses. Hence, although the results of both analyses are related, the moderating variables are not considered in the model to determine its "fit". The similarity between these two analyses is that they were used to examine the hypothesis.

Hypothesis 1a

Hypothesis 1a stated that diversification is positively associated with budgetary slack. As shown in table 16, there is significant effect between the extent of diversification and perceived budgetary slack. The observed probability was 0.00 which is less than 0.01. It means that the increase of the number of the

subsidiaries also followed by the increase of the extent of budgetary slack. Further reasonable explanation about this relationship is presented in the next section.

TABLE 16
REGRESSION RESULTS IN SEM

Path	Estimate	SE	CR	P
Incentive ← strategy	-0.0022	0.0020	-1.1429	0.2531
Incentive ← diversification	0.0021	0.0016	1.2861	0.1984
Emphasis ← strategy*	-0.3904	0.1375	-2.8385	0.0045
Emphasis ← diversification***	0.2123	0.1146	1.8521	0.064
Slack ← incentives***	-8.3382	4.4621	-1.8687	0.0617
Slack ← Strategy*	0.5745	0.0914	6.2849	0
Slack ← emphasis*	-0.1920	0.0637	-3.0142	0.0026
Slack ← diversification*	0.3371	0.0747	4.5131	0

Source: Primary data processed by AMOS 4.01

*Significant at 1 percent level

**Significant at 5 percent level

***Significant at 10 percent level

Hypothesis 1b

Hypothesis to be tested concerns diversification and its effect on increased emphasis on meeting accounting-based budgetary objectives. From table 16 above below, we can find out that the relationship is not significant at 5 percent level. However, it was significant at 10 percent level. It means that the increase of subsidiaries firms controlled by the corporate also forced them to

tighten their emphasis on meeting the budgetary objectives. Further explanation is also provided in the next section.

Hypothesis 1c

A positive association between diversification and incentive is examined on hypothesis 1c. The observed probability 0.1984 indicates that the alternative hypothesis is not accepted (neither at 1, 5 nor 10% significant level) which means that there is no relationship between diversification and incentive. The theoretical justification and logical argument is provided in the following section.

Hypothesis 2a

This hypothesis examined the effect of business unit strategy (differentiators/ prospectors and cost-leaders/defenders) on budget emphasis. The hypothesis stated that differentiator/prospectors have more budget slack than cost leaders/defenders. The observed probability in this study is 0.00 and the sign of the estimate is positive which accepts the alternative hypothesis.

It means that differentiators/prospectors do have more budget slack than cost leaders/defenders.

Hypothesis 2b

With respect to hypothesis 2b, the effect of business unit strategy on budget emphasis was examined. The observed probability 0.0045 indicates that the alternative hypothesis was accepted ($p < 0.01$). As expected, the sign of the estimates is negative. It means that, prospectors/differentiators put less emphasis on meeting the budget target than cost-leaders/defenders.

Hypothesis 2c

Regarding incentive in charge of differentiators/prospectors which posit to be less incentive compared to cost-leaders/defender, hypothesis 2c was tested. The result was seen from table above, although the sign was correct, but the observed probability was 0.2531. This did not accept the alternative hypothesis; in fact this was the signal to reject it.

It means that neither differentiators/prospectors nor cost-leaders/defenders has the significant effect on the determination of manager's incentive.

Hypothesis 3a

This hypothesis examined the effect of the emphasis of budget by corporate firms to their subsidiaries on the budgetary slack on their unit business. The observed probability 0.0026 indicates that the relationship was strong at 1 percent significant level. The sign was also as expected. It means that, the higher the emphasis placed on meeting the budget by the corporate to its subsidiaries, the lower the slack of budget that might exist in the business unit level.

Hypothesis 3b

The negative effect of business unit performance-based incentive on budgetary slack was examined in hypothesis 3b. This study obtained the observed probability 0.0617 which was higher than the cut off point 1 and 5 percent. However, this relationship accepts the alternative hypothesis at 10 percent significant level. This can be interpreted as the higher incentive given to managers of subsidiaries companies, the lower the probability that the slack might present (at 10 percent significant level).

Moderating Effects

The role of contingent variables might have the potential effects on the relationship of the variables examined. This study used two moderating variables which are; Value orientation towards Innovation to examine the changes of the relationship between budgetary slack and business unit strategy; and Power Distance, to examine the changes that might exist on the relationship between budgetary slack and budget emphasis that depends on this moderating variable, power distance.

Before estimating the relationship of this regression, assumptions of multivariate analyses must be met (multicollinearity, autocorrelation, and heterocedasticity). This study is free from these classical assumptions. However, to minimize the space, the results are not shown (please see appendix).

The contingent effect that is examined used the interaction term. The equation is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_1X_2$$

Although this moderated regression analysis may resulting the multicollinearity as argued by many statistic authors (for example see Hair (1995), Gujarati (1995), Imam Ghazali (2001)), but this would be the best predictor for estimating the moderating effect. Many researchers in accounting also use this term of MRA (moderated regression analysis). Subramaniam and Mia (2001) for instance, they did check the multicollinearity problem by correlating the independent variables, but they ignore the moderated variables.

The moderating effect of power distance on the relationship between budget emphasis and budgetary slack.

Hypothesis 4 states:

H4: the interaction term between budget emphasis and budgetary slack is significantly determined by power distance

Table 17: The moderated regression results: Power Distance

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	31.977	13.173		2.428	0.017
Bdg Emphs	-0.373	0.464	-0.430	-0.804	0.424
Power Distance	-0.171	0.493	-0.184	-0.346	0.730
Interaction term	3.919E.03	0.017	0.159	0.225	0.823

Source: Primary data processed by SPSS 11.05

From the table 17 above, it is clearly stated that power distance did not have its role in moderate the relationship between budget emphasis and budgetary slack. The significance of model 2 is 0.823, which is far above the cut-off value 0.01. The probable explanation about these unexpected results will be provided in the next section.

Hypothesis 5

Hypothesis 5 states: the expected change in budgetary slack based on business unit strategy might be lower for managers with low VOI and might be higher for managers with high VOI

Table 17: The moderated regression results: Power Distance

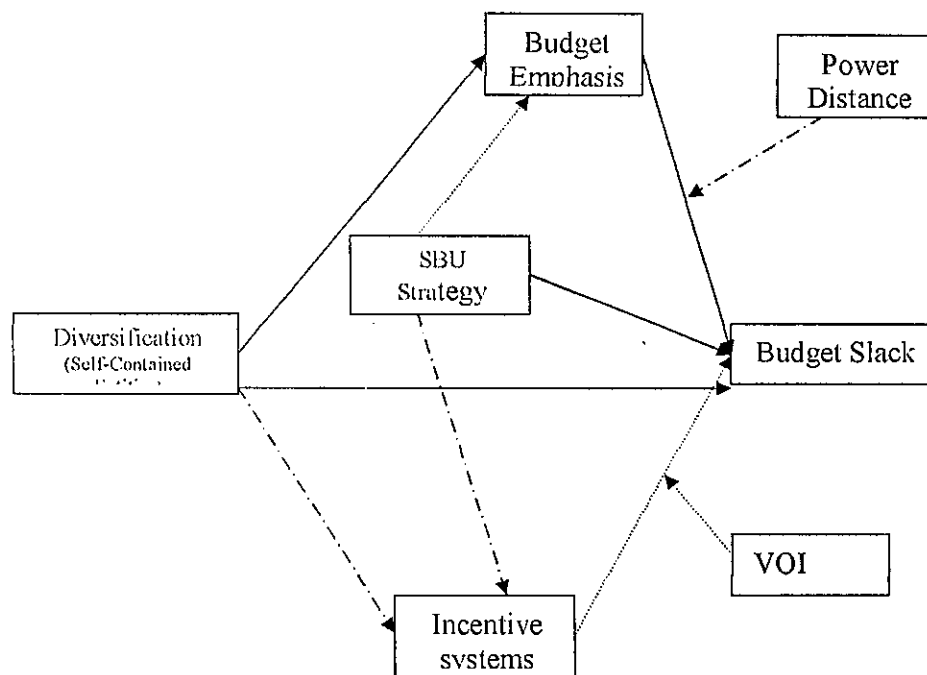
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-13.686	9.240		-1.481	0.142
BUS	1.482	0.509	1.218	2.912	0.004
VOI	1.349	0.568	0.888	2.375	0.019
Interaction term	-5.20E.02	0.030	-1.096	-1.708	0.091

Source: Primary data processed by SPSS 11.05

From the table above, this study reports that there is a moderating effect on the relationship between Value Orientation towards Innovation and Business unit strategy. The R-Square change for model 1 and 2 are 0.433 and 0.017, respectively, indicating there was a significant change when the moderated effect (VOI) was included. The moderator effect was significant on 10 percent observed probability (0.091).

However, the negative sign was not as expected. This would mean that the expected change in Value Orientation towards Innovation based on Business Unit Strategy might be lower for managers with higher VOI. In contrary, the expected change in the extent of budgetary slack based on Business Unit Strategy might be higher for managers with lower VOI. Further reasonable explanation will be presented in the discussion section.

FIGURE 21
RESULTS OF THE ANALYSES (COMBINED SEM AND MRA)



Source: Primary data processed by both AMOS 4.01 and SPSS 11.05

- Significant at 1 percent level
- Significant at 10 percent level
- Insignificant

5.7. Discussion

Hypothesis 1a: diversification is positively associated with slack

As previously stated, evidence supporting Stede's (2001) result which examined the positive relationship between diversification and budgetary slack

was proven. It means that the number of subsidiaries controlled by the corporate is increasing; the extent of budgetary slack could possibly higher, indeed. At least there are three explanations about why this slack is presence more in the more diversified companies.

First, following Galbraith's (1973) model in which he considers the slack as a strategy to reduce the information processing need by corporate management. Diversification, that is an increased number of business units to be controlled, puts pressure on the information processing capacity at the top. In dealing with this overloaded information, corporate management can either increase the capacity to handle more information, or reduce the amount of information that is processed.

Investing in information systems that can increase the information capacity is probably the most effective way. However this was viewed as not an efficient way by the corporate, as this investment was very expensive, as they can barely afford it. Hence, they (mostly the smaller corporate) probably prefer the second option.

On the other hand, the presence of budgetary slack reduces the amount of information to be processed by the corporate. The existence of budgetary slack (indeed, because of the target that is settled by the corporate) may leave the business units with more "trouble" of information reported to the corporate. Therefore, one of the "insincere" goals of the corporate to the business units is accomplished.

The second possible explanation on this significant relationship is because of the familiarity of the corporate in their subsidiaries. This is come from the

definition of diversification that was proposed many researchers (such as Aaker, 1980; Andrews, 1980; Berry 1975; Chandler, 1962; Gluck, 1985 and Pitt and Hopkins, 1985), that defined diversification as the firm's expansion from its core business into other product market. The extent to which a firm is simultaneously active in distinct businesses is higher; the corporate may less familiar with its business unit. Hence, in accordance with the next hypothesis, the corporate would determine the budget target that the business is barely afforded to attain. This would be another reasonable explanation why the slack in business unit is present.

Lastly, the slack might exist probably because of the dysfunctional organizational consequence arises from a lack of control or distortion in information used in decision making by the corporate. In turn, the business unit managers may underestimate the revenues and productive capabilities and/or overestimate costs and resources in the budget. Even if the corporate might be very familiar with their business units operation, so that they could determine their business unit budget target precisely, but this would be useless, unless they found a way to eliminate the lack of control problem they face. Therefore, the most important thing to reduce the presence of slack is by enhancing the management integrity between the corporate and their business units.

H1b: diversification is positively associated with an increased emphasis on meeting accounting-based budgetary objectives

As aforementioned, the observed probability 0.064 ($p > 0.05$) leaves the insignificant relationship between diversification and budget emphasis. However, this relationship was significant at 10 percent ($p < 0.1$) cut-off significance.

Therefore, there is a statistical relationship between diversification and budget emphasis.

As previously stated, diversification leads to increase in the capacity of information processing by the corporate. This overloaded information processing would make the corporate almost impossible to use direct informal interventions in business unit operations as a tool of control. Instead, they might use financial results or budgetary control-based management control systems. The corporate might use the extent of the achievability of the budget target by the business units.

In addition, since corporate managers in diversified firms might lack specific operational knowledge about the various activities of their business units, they probably only emphasize accounting-based budget performance to evaluate their business unit managers' performance.

H1c: diversification is positively associated with more incentive compensated by the corporate

The observed probability ($p = 0.1984$) of this relationship is not significant neither on 1, 5, nor 10 percent significant value. This would mean that there is no relationship between the number of acquired firms controlled by the acquiring firms and the corporate management's reliance on performance-based incentive.

A possible explanation for this insignificant relationship comes from the *dysfunctional behavior* shown by the business unit managers. As previously stated, since business unit managers' may underestimate their productive

capability and revenues, the reliance on performance-based incentive was not the only option the corporate has.

H2a: differentiators/prospectors have more budget slack than cost-leaders/defenders

Many researchers (Fisher and Govindrajan, 1993; Govindrajan, 1986; 1988) suggest that differentiators/prospectors (DIF/PROs) face relatively more uncertainty than Cost-leaders/Defenders (CL/DEFs) because they have broad product lines, engage in product innovation, deal with products that have not yet crystallized, etc. CL/DEFs, in contrast, keep their essentially undifferentiated product offerings relatively stable over time. Hence, the success factors underlying DIF/PRO strategies tend to be of a long term nature and difficult to quantify, which not only make reliance on formal accounting-based budgetary controls less suitable, but also requires a higher degree of flexibility to respond effectively to changes in the environment. One way to hedge against uncertainty is through slack resources, which provide a cushion to support the exploitation or market opportunities and a source of funds to experiment with product innovations (Bourgeois, 1981; Cyert and March, 1963).

In addition, according to Merchant (1985b), the ability to set accurate budget targets and to measure performance precisely, which is likely to be the case for CL/DEF-businesses, provides the opportunity to prevent the introduction of slack.

Another arguable explanation why DIF/PROs have more budget slack is come from the characteristics of CL/DEFs that have been mentioned in many

strategic management literatures. Williamson (1964) maintained that slack creation is potentially restricted as the characteristics of CL/DEFs such as cost cutting, standardization, economies of scale, etc. are emphasized, which is likely to be the case for CL/DEFs.

Hence, CL/DEF have less utility for slack and higher for chance of detecting it, while DIF/PROs both have more utility for slack and a lower chance of detecting it.

H2b: differentiators/prospectors put less emphasis on meeting the budget than cost-leaders/defenders

The observed significance of this relationship was 0.064 ($p < 0.1$), indicating DIF/PROs had less budget emphasis than CL/DEFs at 10 percent significance. Uncertainty, once again, become the most appropriate reason why this relationship present.

As aforementioned, DIF/PROs face much uncertainty because they have broad product lines, engage in product innovation, deal with products that have not yet crystallized, etc. In contrast, CL/DEFs keep their essentially undifferentiated product offerings relatively stable over time (Fisher and Govindrajana, 1993; Govindrajana, 1986; 1988). Therefore, the critical success factors associated with DIF/PROs strategies, such as new product development and innovation, are of a long term nature and difficult to quantify (Langfield-Smith, 1997), which makes reliance on formal accounting-based budgetary controls less suitable (Merchant, 1985b; Simons, 1988). On the contrary, this

formal budgetary control might be very appropriate to be applied in CL/DEFs business units.

H2c: incentives for managers in charge of differentiation/prospector business units are less intensive compared to incentives for managers in charge of cost-leader/defender business units.

The observed probability of this relationship fall at 0.2531 ($p > 0.1$), indicating there is no relationship between incentive and business unit strategy. One tentative explanation is that the objective of DIF/PRO business units which is to achieve a competitive advantage by creating a product - good or service – that is perceived by customers to be unique in some important way, improving the business unit's profit.

The differentiated company's ability to satisfy a customer need in a way that its competitors can not means that it can charge the premium price. The ability to increase revenues by charging premium prices (rather than by reducing costs like the CL/DEFs) allows the corporate to gain above-average profits. Hence, incentive in charge of differentiation/prospector business units is more intensive rather than in cost-leaders/defender business units.

H3a: tight budgetary controls are negatively associated with slack

The negative significance result 0.0026 ($P < 0.01$) indicates that budgetary controls seem to curtail slack. The most possible explanation about this relationship is in line with the economic theory, which maintains that rigid budgetary controls should increase the likelihood that slack gets detected, and therefore, curtailed (Williamson, 1964).

H3b: Business unit performance-based incentives are negatively associated with slack

The results of H3b indicate there is a negative effect between incentives and budgetary slack at 10 percent ($p < 0.1$). A reasonable argument comes from the behavioral side of the managers. A high percentage variable compensation should increase the likelihood that bonus amounts are significant enough for managers to influence their behavior.

Performance-based incentives should reduce randomness (increase controllability) by eliminating subjectivity and dependence on performance fluctuations caused by other business units. Assuming that managers seek to maximize personal income, high business unit performance will be pursued since it translates directly into higher personal income. This however, signals the performance potential of the business and reduces the propensity to build slack over time (Milgrom and Roberts, 1992).

Moreover, organizational incentive systems encompass multiple elements, one of them is performance standards or targets and the process used to set them (Merchant *et al.* 2003). The primary goal of an incentive system is motivation. However, organizations commonly incorporate in incentive systems some features that are designed to induce employees to perform at their maximum. Therefore, as the motivational driver is increasing, either is their job performance. In turn, they would view that lowering their performance would lower their pay-scheme, and vice versa.

H4: the interaction term between budget emphasis and budgetary slack is determined by power distance

The data suggest that power distance is not a moderated variable as this study reveals the insignificant probability ($p > 0.1$). Although theoretically justifications have been shown this relationship clearly, the findings indicate the contrary expectation. It would mean that the expected change in budgetary slack based on budget emphasis, might not be lower or higher in a high/low power distance society.

One Possible tentative explanation is come from the extent of reliance on accounting performance measure that either could be in a higher or lower power distance society. At least there are two arguments in why these ambiguities exist. First, as in the high power distance managers in which “managers seen as making decisions autocratically and paternalistically” (Hofstede, 1980, p. 119), managers are likely forced to be responsible for whatever the result they achieve. Hence, they are strongly only count on a highly precise quantitative performance evaluation. A higher RAPM could also as a mean to put tight budgetary controls in place.

In contrast, managers with high power distance score might also react unfavorably to a high RAPM. As Hofstede’s argue about the satisfaction of managers with directive or persuasive superior is large for managers with high power distance, then they do not only rely on quantitative evaluation such as budgetary precision, instead, they might believe that performance must be

evaluated objectively on every aspects of their job such as disciplinary, human relation, etc.

Those two opposite possibilities might explain why power distance did not act as a moderating variable.

H5: the expected change in budgetary slack based on business unit strategy might be lower for managers with low VOI and might be higher for managers with high VOI

This study found the significant relationship between VOI and business unit strategy that affecting budgetary slack at 10 percent cut-off ($p < 0.1$). However the negative sign is not as expected. This would mean that the expected change in budgetary slack based on business unit strategy might be higher for managers with low VOI and vice versa, might be lower for high managers' VOI.

Almost no justification has been made in this study in explaining why this negative moderated variable exists. However, this study found the clue, although it seems a little bit "odd".

Cost-leadership/defender companies may attempt to ride down the experience curve so that they can lower their manufacturing cost (Hill and Jones, 1995). However, riding down the experience curve is not as easy as cutting down our cigarette budget. A long and accurate research in customer behavior, market trends are two critical factors in doing this. Hence, the managers in cost-leadership/defender companies might be forced to be creative and innovative in conducting their job.

Beside that, another possible explanation is come from the strategic change that the managers might face. The change process, either from CL/DEF to DIF/PRO or vice versa, from DIF/PRO to CL/DEF, create a context where decision making by the corporate becomes increasingly complex and unpredictable as new opportunities alter strategic objectives, or change the priorities placed on those objectives. This can create a level of ambiguity and uncertainty for subordinates as to the priorities or preferences on which to focus their attention. Therefore, the level of innovativeness and creativeness of the managers (referred as VOI) is probably stuck in the middle.

These two arguments hopefully could remove the veil from this idiosyncrasy, as the result is not previously expected.

5.8. Summary

This chapter is concerned with the statistical analysis which is applied to test the study's hypotheses. Before presenting the findings, tests of data collected are conducted. These tests consist of test of normality, test of bias (bootstrapped the sample into 500), multicollinierity and singularity, evaluation of SEM's assumptions, internal consistency (reliability test), and validity tests. Since data collected to test the hypotheses came from the questionnaires sent to the respondents, it is necessary to run test of these data collected. The first section provides the results of data test and section describes the findings of hypotheses testing.

Test for non-normality data showed non-normal data. Bootstrapped model was used to check the danger of the non-normal data. However, by

bootstrapping the sample into 500, the test showed the harmless of this study's unnormal data. This study also detected the outliers, both univariate and multivariate. Nevertheless, the outliers were retained to ensure generalizability to the entire population. Multicollinearity and singularity showed no problem in the data used in this study, either was the reliability test.

Before testing the hypotheses, this study searched the best fit model. Three approaches were employed – treating the variables as the unobserved variable, treating the variables as the observed variable, and modified observed variable. A modified observed variable was found to be the best-fitted one. This approach was run to examine the hypotheses.

There were two hypotheses that can not be accepted. The path from business unit strategy to incentive and diversification to incentive were not significant at 10 percent cut-off. The rest of the hypotheses were accepted at 10 percent threshold value.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The major purposes of this study were: 1) find out the best fit model from the alternatives method, and 2) an analysis of the effect of situational factors such as diversification and business unit strategy and firm's administrative system (incentive systems and budget emphasis) on the presence of budgetary slack. The possibilities of moderating effect on some of these relationships are also examined.

A literature review was conducted in order to gain a better understanding of the determinants of budgetary slack and current state of empirical research on this research area. Five hypotheses were formulated to accomplish the study's purposes. The first hypothesis concerns with diversification and its effect on the budgetary slack whether direct or indirect effect passing by budget emphasis and incentive. The second hypothesis relates with business unit strategy and its effect on the budgetary slack, either direct or indirect relationships passing through budget emphasis and incentive. The third hypothesis concerns with budget emphasis and incentives systems and their effect on budgetary slack. While the fourth and the fifth hypothesis relates with the possibility of moderating variable employed in the model. The moderating variables incorporated in this study are power distance in its role to affect the relationship between budget emphasis and budgetary slack, and the second

moderated variable is Value Orientation towards Innovation that affecting the relationship between business unit strategy and budgetary slack.

The conclusions of this study are based on the literature review and the statistical analysis of the data obtained through use questionnaire, with emphasis on the latter. In addition to the conclusions, this chapter contains a section on the limitations of study and suggestions fur further research.

6.1. Summary

In chapter II, the definition of the variables incorporated in this study were presented. This chapter divided its contents into 7 part, which is respectively contingency theory as the grounding theory, budget characteristics, budgetary slack, diversification, incentives systems, budget emphasis and business unit strategy. The moderating variables (power distance and value orientation towards innovation) also included in this chapter to discuss their definition and the developments and current state of empirical research.

Although very limited, this research tries to give the previous empirical evidences in order to provide the reader(s) trends of these variable and their relationships. Hence, this study, in accordance with the purposes of the study above, found many research gaps.

For example, in contrast to Hopwood (1972), Otley (1978) found that rigid budgetary controls did not lead to increased levels of budget-related tensions and found only mixed support for its associated dysfunctional behaviors (obtaining easy

budget targets and having a short-term view of the job). Instead, Otley (1978) found that a high emphasis placed on meeting the budget lead to budgets being more closely met (i.e. higher budget accuracy), this can reduce slack. Otley (1978) also pointed out that the above relationships are dependent on the organizational context in which the budgetary control style is used, such as an organization's operating environment and size.

Equally to their surprise, Dunk (1993) and Merchant (1985b) found that budget slack was low when budget emphasis was high. From their behavioral perspective, they expected budget slack to be high under a rigid budgetary control style. Organization economists, however, would argue that the purpose of rigid budgetary controls is to increase the likelihood that dysfunctional behaviors get detected, and therefore, reduced (Merchant, 1985b; Williamson, 1964).

Moreover, research that examined business unit strategy and its effect on the extent of budgetary controls are also inconclusive. Simons (1987; 1988), for instance, he found that prospectors emphasize rigid budgetary controls to a greater extent than defenders, while Govindrajan (1988) and Govindrajan and Fisher (1990) found the contrary results. They found that rigid budgetary controls are emphasized in the differentiator/pro prospector firms.

Chapter III provides methodology and research design of the study. This study consists of seven variables, which five variables are examined simultaneously

and two variables are employed to examine some possibilities of the relationships previously tested containing the moderating variables.

Corporate Diversification is measured by the separate entities in each company. Foreign investment and indirect ownership are not considered as diversified firms. Budget emphasis is measured by the questionnaire survey, which each questionnaire consist of 7 items that scores from 1 to 5. The higher score, the more achieving the budget is emphasized, and hence the tighter the budgetary control process is perceived to be.

Budgetary slack is also measured by questionnaire survey which consists of 5 items. Item 1-4 using 5 item's Likert scale, while item no 5 is a fully anchored question asking the level of ease in attaining the budget target. Incentives are measured by using two aspects of monetary incentives. First, asking the respondents to indicate the percentage of their compensation that is performance-dependent. Second, asking the respondents to indicate the percentage of their bonus that depends on total corporate performance. Business Unit Strategy also measured by questionnaire survey. This section consist of 5 items which ask the respondents to position their business-unit relative to their competitor in the following aspects: product selling price, R & D expenditure, product quality, brand image, and product features.

The moderating variable, Value orientation towards Innovation, is measured by using a six items construct adapted from various researchers (i.e. O'Really *et al.*,

(1991), Windsor and Ashkanasy (1996) and Subramaniam and Mia (2001)) which consist of the following terms: innovation, opportunities, experimenting, risk-taking, being careful and rules-orientation. 5 item Likert's scale is also employed. The construct of power distance is obtained from Hofstede (1980) which consist of 9 items and measured by 5 item Likert's scale.

This study would never be accomplished unless the hypotheses are clearly stated (indeed, to be tested). The first hypothesis to be tested relates to diversification and its relationships with budgetary slack. Their relationships either could directly go through budgetary slack, or mediated by budget emphasis and/or incentive system. The second hypothesis, in the other hand, relates to business unit strategy and also its relationship with budgetary slack, either direct or indirect ones by intervening variables; budget emphasis and/or incentives.

With respect to the moderated variables, this study tested hypothesis 4 and 5. Hypothesis 4 examined the effect of power distance and its role in affecting the relationship between budget emphasis and budgetary slack. Moreover, hypothesis 5 tested the relationship between value orientations towards innovation and business unit strategy in affecting budgetary slack.

Chapter IV presents the result of the mailing questionnaires. A pilot study of 34 questionnaires was allocated to the "candidate" respondents that were considered to be representative in the sample gathering. The significance changes are resulted after re-evaluated the questionnaires in the pilot study. The most significance ones is the omission of Hofstede's power distance construct no C.12 (Hofstede, 1980, p.

410). This revision was because of the difficulty that appeared in translating the construct.

After made some revisions, 505 revised questionnaires were mailed to the managers of subsidiaries that their parents are publicly listed in the Jakarta Stock Exchange until the end of 2002 reporting period. A response rate of 8.51 indicated a very poor interest in the research, as many research in the same setting conducted in the foreign were averaged above 20 percent (for example see Dunk (1993), Dunk and Perera (1995), Imam Ghozali (1995), Lau et al. 1997, Stede (2001), etc).

Considering the very low response rate, thus impacting in the sample gathered to analyzed, this study tries to generate more sample by loosening its previously strict sample requirements. The second wave of data collection was gathered from Candi and Genuk Industrial area. Out of 200 questionnaires spread, 56 usable responses were received. Many insiders were used to increase the response rate.

As there might be differences in answering the questionnaires and might be no representative of the population, t-test was conducted by comparing the subsidiaries of go-public and non go-public parents. This test was accomplished by comparing means and variance response score of each variable used. The result shows that no variable that shows the difference between mean responses scores of go-public and non go-public parents. In addition, test for equality of variances showed the unexpected results as budgetary slack and business unit strategy are significant, both at the 5 percent and 10 percent cut-off value, respectively.

Profile of the respondents

The main activities of respondents were food and beverages, textile mill products, plastic and glass product, and metal and allied products. About 89.10 percent came from those manufacturing sectors. When respondents were classified by the educational level, more than a-half were from undergraduate alumni (64.36), while the rest of them splits the same number of level of education (comparing graduate alumni and others resulted 17.82, each).

6.2. Conclusions

This section provides the statistical results and their probable explanation both tentative (logical) or theoretical justification.

Hypothesis 1a:

There is a positive significant relationship between diversification and budgetary slack at 1% significance. This result can be interpreted as every increased in the number of diversified firms significantly increases the probability that the managers will create budgetary slack. The unstandardized estimate value is 0.3371, meaning that an increase of diversified firm would be followed by the increase of 0.3371 point of budgetary slack.

The most possible explanation depicted from Galbraith's (1973) model in which he considers the slack as a strategy to reduce the information processing need by corporate management. Moreover, in line with the classical myth, "I can barely remember my own children's name as they are a lot", the corporate might be

unfamiliar with their own subsidiaries, hence stated the target that barely afforded to attain. This could create slack either.

Hypothesis 1b:

There is a positive significant relationship between diversification and budgetary slack. The observed probability in this study was 0.064 which is accept the null hypothesis at 5 percent cut-off value, but accept the alternative hypothesis at 10 percent significant value. The unstandardized estimate value is 0.2123 which means that an increase of one diversified firm would be followed by the increase of control in attaining the budget by corporate approximately 0.2123 point.

The possible explanation, once again, comes from Galbraith's model. The overloaded information processing at the top, would make the corporate to only rely on financial-based performance evaluation. Hence, the larger the number of subsidiaries controlled by corporate, the more the rigidity the budget would be.

Hypothesis 1c:

The observed probability is 0.1984, which means that there is significant relationship between diversification and incentives systems to motivate their business unit managers, neither at 1, 5, nor 10 percent significant value.

The tentative explanation is as the subsidiaries might underestimate their real performance, then the corporate would not only rely on performance-based incentive. Instead, they would prefer non-financial incentives (e.g. intrinsic rewards).

Hypothesis 2a:

The regression path from business unit strategy to budgetary slack had the observed probability below 1 percent significance level. It means that cost-leadership/defender companies tend to create less budgetary slack than differentiators/prospectors.

The most reasonable explanation is because of the success factors underlying differentiators/prospectors that of to be a long term in nature and difficult to quantify. Therefore, reliance on formal accounting-based budgetary controls less suitable and requires a higher degree of flexibility to respond effectively to changes in the environment. Then the budget target can not be precisely determined. These characteristics of differentiators/prospectors possibly can explain this tendency. Of course this argument can be interpreted in the cost-leadership/defender companies by contrasting their characteristics.

Hypothesis 2b:

The observed probability of the relationship between business unit strategy and budget emphasis is 0.0045 which is below 1 percent significance level. It means that cost-leadership/defender received more emphasis in meeting the budget rather than differentiator/prospector companies. Since the uncertainty in differentiator/prospector companies are higher, than reliance only count on accounting-based budgetary controls are less suitable.

Hypothesis 2c:

The relationship between business unit strategy and incentives was posited to be negatively associated. The observed probability of this relationship was 0.2531.

This observed probability is not significant at 10 percent cut-off value, accepting the null hypothesis.

The tentative explanation the study could provide is because the ambiguous condition between differentiators/prospectors and cost-leadership/defenders. Ignoring this hypothesis stated that cost-leadership/defender paid more incentive, the differentiators/prospectors have the ability to increase revenues by charging premium prices allows the corporate to gain above-average profits, hence they probably also compensated their subordinate more.

Hypothesis 3a:

The observed probability of this relationship is 0.0026 ($P < 0.01$) indicates that budgetary controls seem to curtail slack. The most possible explanation about this relationship is in line with the economic theory, which maintains that rigid budgetary controls should increase the likelihood that slack gets detected, and therefore, curtailed.

Hypothesis 3b:

The results of H3b indicate there is a negative effect between incentives and budgetary slack at 10 percent ($p < 0.1$). A reasonable argument comes from the behavioral side of the managers. A high percentage variable compensation should increase the likelihood that bonus amounts are significant enough for managers to influence their behavior, including to be "honest" and "true" in estimate their performance. Therefore, incentives, based on the data of this study, reduces the extent of budgetary slack.

Hypothesis 4:

The data suggest that power distance is not a moderated variable as this study reveals the insignificant probability ($p > 0.1$). Although theoretically justifications have been shown this relationship clearly, the findings indicate the contrary expectation. It would mean that the expected change in budgetary slack based on budget emphasis, might not be lower or higher in a high/low power distance society.

At least there are two arguments in why these ambiguities exist. First, as in the high power distance managers in which “managers seen as making decisions autocratically and paternalistically” (Hofstede, 1980, p. 119), managers are likely forced to be responsible for whatever the result they achieve. Hence, they are strongly only count on a highly precise quantitative performance evaluation. A higher RAPM could also as a mean to put tight budgetary controls in place.

In contrast, managers with high power distance score might also react unfavorably to a high RAPM. As Hofstede’s argue about the satisfaction of managers with directive or persuasive superior is large for managers with high power distance, then they do not only rely on quantitative evaluation such as budgetary precision, instead, they might believe that performance must be evaluated objectively on every aspects of their job such as disciplinary, human relation, etc.

Hypothesis 5:

This study found the significant relationship between VOI and business unit strategy that affecting budgetary slack at 10 percent cut-off ($p < 0.1$). However the

negative sign is not as expected. This would mean that the expected change in budgetary slack based on business unit strategy might be higher for managers with low VOI and vice versa, might be lower for high managers' VOI.

Cost-leadership/defender companies may attempt to ride down the experience curve so that they can lower their manufacturing cost (Hill and Jones, 1995). However, riding down the experience curve is not as easy as cutting down our cigarette budget. A long and accurate research in customer behavior, market trends are two critical factors in doing this. Hence, the managers in cost-leadership/defender companies might be forced to be creative and innovative in conducting their job.

Beside that, another possible explanation is come from the strategic change that the managers might face. The change process, either from CL/DEF to DIF/PRO or vice versa, from DIF/PRO to CL/DEF, create a context where decision making by the corporate becomes increasingly complex and unpredictable as new opportunities alter strategic objectives, or change the priorities placed on those objectives. This can create a level of ambiguity and uncertainty for subordinates as to the priorities or preferences on which to focus their attention. Therefore, the level of innovativeness and creativeness of the managers (referred as VOI) is probably stuck in the middle.

6.3. Limitations of the study

This study carries several inherent limitations. Since the very low response rate, totally 11.25%, the question arises as to whether the responses obtained are representative of the population. The use of questionnaire also introduces the possibility that the respondents may place a different interpretation on the questions

than did the researchers. Efforts were made to overcome this limitation, which was by conducting the pilot study.

Beside that, as the sample of this study contained both the subsidiaries of go- and non go-public's parents, the results of this study might be questionable. To minimize this possibility, t-test was employed by comparing those two different subsidiaries.

Moreover, because of the different assumptions in SEM and MRA, this study might unobviously reduce the real estimate value of each relationship. Since, MRA only assumes the direct relationship, and not the indirect relationship preceding it.

Business unit strategy in this study are measured by questionnaires survey (only based on their perceptions), hence the respondents in the same companies might result the very different answers. There was no effort in this study to overcome this limitation, since the better method was not found.

In addition, there are some determinants of budgetary slack which are not included in the study. Budgetary slack may actually be influenced by other variables than those considered in the study. Therefore, conclusions can be made only with respect to those situational factors and firm's administrative systems.

6.4. Suggestions for further research

To overcome the prior conclusive results and the idiosyncrasies or anomalies of study in Indonesia, this study incorporated two moderated variables. However, as this study employed two analyses tools, SEM and MRA, to examine the

hypotheses, the results might be abstract. This study may not be replicated, unless she/he overcomes this problem by incorporating analysis tools that can be compute the intervening and moderating variables simultaneously.

Further study can also incorporate another measures of incentives such as group-based incentive Vs tournament-based incentive suggested by Drake et al. (1999), compensation level and/or compensation change (Ke et. al. 1999), use of long term incentives (Merchant, 1995). By overcoming the data difficulty, organizational systems variables can also proxied by use of non-financial performance measures that have been done before by Perera et al. (1997)

The role of national culture can also be extended by incorporating other dimensions of national culture such as individualism, uncertainty avoidance, or masculinity. Or perhaps, by combining the national culture and organizational culture will be clearly determine the truth relationship of each variable hypothesized. The most challenging extensions will be emerge, if the managerial's value of innovation is replaced by one or more discrete organizational values (Ali and Al-Shakis, 1985). Teamwork, fairness, or perhaps law and order can be included in the next study.

Further research can also change the business unit strategy's scale. The dichotomous variable may be better, as this dummy variable can precisely determine the exact threshold value of differentiator/prospectors and cost-leadership/defender companies based on its median or mean value.

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